

Rocky Flats Site Quarterly Report of Site Surveillance and Maintenance Activities Third Quarter Calendar Year 2006

January 2007



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Rocky Flats Site

Quarterly Report of Site Surveillance and Maintenance Activities

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Acronyms and Abbreviations

Ag silver

Am americium-241 AoIs analytes of interest BA Biological Assessments

Be beryllium

BO Biological Opinions

Cd cadmium CD compact disk

CDPHE Colorado Department of Public Health and Environment

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act of

1980 (42 USC 9601, et seq.)

COU Central OU
Cr chromium
CY calendar year

DOE U.S. Department of Energy DQO Data Quality Objectives EDE effective dose equivalent

EPA U.S. Environmental Protection Agency
ESL Environmental Sciences Laboratory
ETPTS East Trenches Plume Treatment System

FC functional channel

FY fiscal year

GPS global positioning system
GWIS ground water intercept system

HR ICP/MS High Resolution Inductively Coupled Mass Spectrometry

IA Industrial Area

IHSS Individual Hazardous Substance Site

IM/IRA Interim Measures/Interim Remedial Action

IMP Integrated Monitoring Plan

ISMP Interim Surveillance and Maintenance Plan

K-H Kaiser-Hill Company, L.L.C. LANL Los Alamos National Laboratory LM Office of Legacy Management

mg/L milligrams per liter

MSPTS Mound Site Plume Treatment System

NESHAP National Emissions Standards for Hazardous Air Pollutants

OLF Original Landfill

PBA Programmatic Biological Assessment

pCi/L picocuries per liter
PLF Present Landfill
POC Point of Compliance
POE Point of Evaluation
Pu plutonium-239,240
QA quality assurance
OC quality control

RCRA Resource Conservation and Recovery Act (42 USC 6901, et seq.)

RFCA Rocky Flats Cleanup Agreement

RFETS Rocky Flats Environmental Technology Site

RFPO Rocky Flats Project Office

RFS Rocky Flats Site

RI/FS Remedial Investigation/Feasibility Study

SED Sitewide Ecological Database

SEEPro Site Environmental Evaluation for Projects

SID South Interceptor Ditch

Site Rocky Flats Site

SPPTS Solar Ponds Plume Treatment System SVOC semi-volatile organic compound

TIMS Thermal Ionization Mass Spectrometry

μg/L micrograms per liter

U uranium

USFWS U.S. Fish and Wildlife Service VOC volatile organic compound

Quarterly Report of Site Surveillance and Maintenance Activities—3rd Quarter CY 2006 Doc. No. 50286800

Executive Summary

The Department of Energy (DOE) Office of Legacy Management (LM) has assumed responsibility of all surveillance and maintenance activities at the Rocky Flats Site to continue protection of human health and the environment. To accomplish this, the accelerated actions that were completed by the DOE Office of Environmental Management will be maintained and any monitoring and maintenance requirements specified in previous decision documents will be conducted as described in the draft Interim Surveillance and Maintenance Plan for the Rocky Flats Site. These surveillance and maintenance requirements include environmental monitoring; maintenance of the erosion controls, landfill covers, dams, and ground water treatment systems; and operation of the ground water treatment systems.

An administrative highlight this quarter was the completion and release of the 2006 Integrated Monitoring Plan (IMP) (DOE 2006e, 2006f). This version is essentially the same as the FY05 Rev. 1 IMP (K-H 2005a, 2005b) with the required updates to the monitoring at both landfills, and elimination of obsolete portions (such as air monitoring in support of building demolition).

This report addresses the third calendar quarter of 2006 (July 1 through September 30). During that time LM continued responsibility of surveillance and maintenance activities at the Site.

Highlights of the surveillance and maintenance activities include:

- Non-routine (project-specific) and routine (per the 2006 IMP [DOE 2006e, 2006f]) ground water monitoring, and non-routine maintenance of ground water treatment systems;
- Routine surface water monitoring as required by the 2006 IMP, and routine pond operations and management;
- Collection of ecology data during the 2006 growing season; and
- Routine Site Perimeter Air Monitoring as required by the 2006 IMP using the reduced three-station network.

This report also includes descriptions of activities that LM implemented including Site security, maintenance and repair of erosion controls to protect bare soil areas, and inspection of the landfills to assure protection of the environment, including ground water and surface water quality.

End of current text

1.0 Introduction

All accelerated actions have been completed at the Rocky Flats Site (the Site) according to requirements in the Rocky Flats Cleanup Agreement (RFCA) (CDPHE et. al 1996). The U.S. Department of Energy (DOE) continues to conduct surveillance and maintenance activities at the Site to maintain these accelerated actions, to protect human health and the environment, and to comply with DOE orders and applicable U.S. Environmental Protection Agency (EPA), Colorado Department of Public Health and Environment (CDPHE), and local regulations. This report describes the environmental monitoring, maintenance, and associated operations that were conducted during the period July 1 through September 30, 2006.

1.1 Purpose and Scope

This report is required by Section 3.4.B of Attachment 5 of the RFCA. The purpose of this report is to inform the regulatory agencies and stakeholders regarding the surveillance and maintenance activities being conducted at the Site. DOE Office of Legacy Management (DOE-LM) is committed to periodic communications such as this report and through other means such as webbased tools and public meetings.

As of mid-October 2005, all physical activities related to closure of the Site had been completed. This report focuses on routine maintenance and monitoring activities that were conducted during the third quarter of calendar year (CY) 2006 following completion of Site closure-related activities.

1.2 Background

Surveillance and maintenance activities, including environmental monitoring, are conducted according to the Interim Surveillance and Maintenance Plan (ISMP; DOE 2005g). This plan references the Integrated Monitoring Plan (IMP Rev. 1; Kaiser-Hill [K-H] 2005a) as well as other operational, monitoring, and maintenance plans for the landfills, ground water treatment systems, and ponds. These plans include:

- Rocky Flats Environmental Technology Site (RFETS) IMP FY05 Summary Document, Revision 1 (K-H 2005a)
- RFETS IMP FY05 Background Document, Revision 1 (K-H 2005b)
- Operations and Maintenance Instructions for Rocky Flats Surface Water Control Project (Dams and Reservoirs) (DOE 2005d)
- RFETS Surface Water Pond Operations Plan (DOE 2005f)
- RFETS Emergency Response Plan for Rocky Flats Dams (DOE 2005e)
- Ground Water Plume Treatment Systems Operations and Maintenance Manual (DOE 2005c)
- RFETS Revegetation Plan (DOE 2005h)

- RFETS Erosion Control Plan (DOE 2006a)
- Vegetation Management Plan for RFETS (DOE 2005i)
- Ecological Monitoring Methods Handbook (DOE 2005a)

The ISMP has been revised and reissued in September. The FY05 IMP, Rev. 1, was updated to reflect monitoring requirements at the Original Landfill (OLF) and Present Landfill (PLF). Those requirements were finalized in February 2006 at the OLF (DOE 2006b), and in May 2006 at the PLF (DOE 2006c); the 2006 IMP was issued in July 2006 (DOE 2006e, 2006f). Monitoring performed in the 3rd quarter of CY 2006 met the requirements at both landfills.

1.3 Data Management

1.3.1 Water and Air Data

Data from samples submitted to an analytical laboratory are received as both hard copy and as an electronic data deliverable. The electronic data are loaded into an Oracle-based relational database. The environmental monitoring data are accessible using the Site Environmental Evaluation for Projects (SEEPro) application. The hard-copy analytical reports are archived in the Site records library in Grand Junction, along with the original field data forms and other relevant hard copy forms or documents containing project data. Well construction and lithology logs are maintained for previously drilled wells and are produced for all new wells drilled. These logs are archived in the Site records library and can also be accessed electronically via the SEEPro database and the Geospatial Environmental Mapping System.

SEEPro uses Oracle[®] software for data management and Microsoft[®] Access for data retrieval and display. It compiles water quality, air quality, field parameter, sample tracking, sample location, and water level data for ground water, surface water, boreholes, soils, and sediment samples. Field parameter data include such information as sample location, sample date, pH, turbidity, conductivity, and temperature. Chemical information (CAS registry numbers, analytical results, and detection limits) is also included. Specific procedures for verification of database information received from subcontractors, or input directly into SEEPro, are followed. These procedures provide quality assurance (QA) documentation, which ensures that available data have been incorporated and entered or uploaded properly into SEEPro. Data integrity is maintained with standardized error checking routines used when loading data into SEEPro. Other procedures address database system security and software change control.

The Rocky Flats Site (RFS) field data are entered through the FieldPar field data entry system. This system is a data entry module that is compatible with the SEEPro database, and is used in the office by field personnel. Data entered into FieldPar are verified by the sampler before loading into the main SEEPro database.

Spatial information for air and water data features are located in the LM Geographic Information System (GIS) database. Some of the data features included are monitoring locations, potentiometric surfaces, plume configurations, streams/creeks, lakes/ponds, topographic contours, and historic RFS facilities. This system uses an ESRI® ArcGIS™ suite of software to store and present data. Automated monitoring locations and other sample location data features are derived from location information stored in the SEEPro database.

1.3.2 Ecology Data

Ecological data has been collected at the Site for many years. Since the early 1990's ecological data has been kept in electronic files for easier access, retrieval, and analysis. In the mid-1990's, the Sitewide Ecological Database (SED) was established as a master dataset for the various types of ecological data collected at the Site. The SED is a Microsoft Access® database that contains all Quality Assured ecological data for the RFETS from early 1993 through the end of 2001. Data that did not meet the QA objectives is not included in the database. Ecology data in the SED includes: vegetation monitoring, weed control and controlled burn vegetation monitoring, wildlife surveys - including birds, small mammals, frogs, insects, and fish, Preble's meadow jumping mouse habitat characterization and telemetry tracking, and a small amount of soil characterization survey data (for revegetation issues) and a few other types of ecological data. The SED does not contain data on potential contaminants nor is it linked to any GIS or other spatial tool. The data in the SED is primarily observational or catch-and-release. The data in the SED are raw data taken directly off of field logbooks and datasheets. The SED is not intended as a reference for the lay-person. It is a repository of quality assured raw field data collected by Site Ecologists and cannot be taken out of context of the methods used to collect the data. Data collection methods are not stored in the database, they are described in reports and field sampling plans.

From 2002 to the present, the ecology data has been stored as separate datasets by sample type, event, and year. Dependent on the dataset, the data may be in Microsoft Access[®] database or in a Microsoft Excel[®] spreadsheet format. The non-spatial electronic ecology data are stored on the Robin server at the Rocky Flats Site in Westminster, Colorado, or on backup electronic media.

Spatial ecology data for the Rocky Flats Site is available for several data types and is stored in the GIS on the Gull server in Grand Junction, Colorado. The types of ecological spatial data that are available include: annual weed distribution data (for selected species), annual weed control locations, biocontrol release locations, vegetation and wildlife monitoring locations (transect end points, sample points), vegetation community classifications, Preble's mouse habitat, wetland locations, wildfire/prescribed burn locations, Preble's mouse and wetland mitigation work, and rare plant locations. These data are available in various ArcGIS® compatible formats. In addition to these types of spatial data, orthorectified aerial and satellite imagery is also available for the Site for different timeframes—pre- and post-closure.

End of current text

2.0 Site Operations and Maintenance

2.1 Pond Operations

During the 3rd quarter of CY 2006, the Site performed no pond water transfers and discharges. The location of the ponds and drainage features are given in Figure 3–1. As of September 30, 2006, Ponds A-3, A-4, B-5, C-2, and the Landfill Pond were holding approximately 9.2 million gallons (9.3 percent of total capacity [99 million gallons]).

Monthly routine dam inspections, pond level measurements, and piezometer measurements were performed as scheduled during the quarter. Dam instrumentation upgrades were completed for all Site dams. Upgrades included larger batteries, several new pressure transducers, and the installation of 3,000 feet of flexible metal conduit to eliminate animal damage. Installation of new staff gages and the re-survey of existing staff gages were also completed.

2.2 Passive Ground Water Treatment Systems

Maintenance and operation of ground water treatment systems at the Site by LM personnel was begun in late October 2005. The system-specific summaries below focus on tasks performed by LM.

2.2.1 Mound Site Plume Treatment System (MSPTS)

Routine maintenance activities continued at the MSPTS through the 3rd quarter of CY 2006. These activities included weekly raking of the media and inspection of influent and effluent flow conditions.

Additional detail regarding maintenance work at the MSPTS is given in Section 4.4.1 of this report.

2.2.2 East Trenches Plume Treatment System (ETPTS)

Routine maintenance activities continued at the ETPTS through the 3rd quarter of CY 2006. This included weekly raking of the media and inspection of influent and effluent flow conditions.

Additional detail regarding maintenance work at the ETPTS is given in Section 4.4.2 of this report.

2.2.3 Solar Ponds Plume Treatment System (SPPTS)

Routine maintenance activities continued at the SPPTS through the 3rd quarter of CY 2006. This included weekly inspection of the solar/battery system that powers the pump, operation of the pump, and influent and effluent flow conditions.

Additional detail regarding maintenance work at the SPPTS is given in Section 4.4.3 of this report.

2.3 Landfills

The Resource Conservation and Recovery Act (RCRA) Subtitle C-compliant cover for the PLF was completed May 2005. The engineered cover for the OLF was completed August 2005. LM personnel initiated the landfill inspections in October 2005. The general approach for the PLF and OLF monitoring and inspections, along with the results of those inspections, are shown below.

2.3.1 Present Landfill

The PLF consists of approximately 22 acres of an engineered RCRA Subtitle C-compliant cover over a former sanitary/construction debris landfill. A diversion channel surrounds the landfill and diverts stormwater runoff away from the landfill to No Name Gulch. The landfill has a passive seep interception and treatment system, installed to treat landfill seep water and ground water intercept system (GWIS) water, that discharges into the Landfill Pond. A gas extraction system is also built into the landfill and allows subsurface gas to vent to the atmosphere.

Subsidence and consolidation at the PLF will be monitored by visually inspecting the surface of the landfill cover for cracks, depressions, heaving, and sinkholes. The landfill final construction site conditions will be used as a baseline for comparisons made during site inspections. In addition to the visual inspection, settlement monuments will be used to evaluate the actual settlement at these specific locations compared to the expected settlement calculated in the final design. Nine settlement monuments were installed across the top of the landfill cap, with an additional six monuments located on the east face of the landfill. The monuments will be monitored quarterly for the first year, and annually thereafter. The first survey of these locations will be performed in the fourth quarter of 2006.

The inspections of the PLF were conducted monthly. Monthly inspections were initiated in June consistent with the requirements contained in the most recent Monitoring and Maintenance plan released in May 2006. It is anticipated that after the first year, the inspection frequency may be reduced to quarterly for an additional 4 years. The inspection program will be evaluated at the next Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) review scheduled for 2007. The findings and observations of the inspections will be presented in the Quarterly and Annual Reports, which will be submitted to EPA and CDPHE. Inspections and monitoring tasks are addressed in the *Present Landfill Monitoring and Maintenance Plan and Post-Closure Plan* (DOE 2006c) and include ground water and surface water monitoring (see Section 3.4 and Section 4.0), monitoring subsidence/consolidation, slope stability, soil cover, vegetation, stormwater management structures, and erosion in surrounding features so that corrective actions can be taken in a timely manner.

2.3.1.1 Inspection Results

PLF inspections were performed on July 28, August 21, and September 27. An evaluation of the landfill cover vegetation was performed July 28 and August 21. The inspection process followed the format and protocol established in the *Present Landfill Monitoring and Maintenance Plan and Post-Closure Plan* (DOE 2006c). No significant problems were observed during these inspections. Refer to the completed inspection forms accompanying this document for additional information.

2.3.1.2 Settlement Monuments

In late July the settlement monument locations proposed in the PLF Monitoring and Maintenance Plan were field surveyed to correspond to the exact locations used in the waste settlement calculations. Installation of the settlement monuments at the PLF began August 7. Progress was slow because the soil was very rocky and highly compacted. The work was stopped while the installation method was re-visited. After consultation with DOE-LM, the DOE Office of Environmental Management, the landfill design engineer, and the settlement monument design engineer, an agreement was reached to use a backhoe to perform the first stage of excavation for the remaining eight monuments on the top of the landfill. Once the bio-barrier was reached the excavation was completed manually. The six monuments on the east face of the landfill required manual excavation due to the steep slope.

Installation of the settlement monuments at the PLF was completed the fourth week of August. Revegetation of the excavation areas was completed by Site LM personnel.

2.3.2 Original Landfill

The OLF consists of approximately 20 acres of an engineered cover over a former solid sanitary and construction debris landfill. The final cover consists of a 2-foot-thick Rocky Flats Alluvium soil cover that was constructed over both a regraded surface and a buttress fill. The original surface was regraded to provide a consistent slope. A 20-foot-high, 1,000-foot-long soil mass buttress fill was placed at the toe of the landfill. Erosion is controlled by a series of diversion berms that carry storm runoff away from the cover in lined channels. In addition, the soil cover was covered with both straw mulch and a spray-on erosion control medium called "Flexterra." A perimeter channel collects runoff from the diversion berms and carries it away from the landfill.

The inspections of the OLF were conducted monthly. Monthly inspections were initiated in June consistent with the requirements contained in the final Monitoring and Maintenance plan released in February 2006. It is anticipated that after the first year, the inspection frequency may be reduced to quarterly for an additional 4 years. The inspection program will be evaluated at the next CERCLA review scheduled for 2007. The findings and observations of the site inspections will be presented in the Annual Report, which will be submitted to EPA and CDPHE. Inspections and monitoring tasks are addressed in the *Final Landfill Monitoring and Maintenance Plan, Rocky Flats Environmental Technology Site, Original Landfill* (DOE 2006b). and include ground water and surface water monitoring (see Section 3.4 and Section 4.0), monitoring subsidence/consolidation, slope stability, soil cover, vegetation, stormwater management structures, and erosion in surrounding features so that corrective actions can be taken in a timely manner.

2.3.2.1 Inspection Results

OLF inspections were performed July 28, August 21, and September 27. An evaluation of the landfill cover vegetation was performed July 24, August 21, and September 22. The inspection process followed the format and protocol established in the *Final Landfill Monitoring and Maintenance Plan, Rocky Flats Environmental Technology Site, Original Landfill* (DOE 2006b). No significant problems were observed during these inspections. Minor seeps and slumps that

have been noted in the OLF inspections and are being monitored are discussed in Section 2.3.2.2. Refer to the inspection forms accompanying this document for additional information.

2.3.2.2 Seeps

In July a shallow trench was dug approximately half the length of Diversion Berm #3 to drain areas of standing water at Seep #4 to the west perimeter ditch. All the current wet soil areas associated with suspected seeps on the OLF were surveyed using the field global positioning system (GPS) instrument to provide a snapshot of the status of the seep areas on the landfill cover. The GPS information will be used to track seep/wet area locations over time. Photographs were taken of each location as well.

Seeps #4 and #7 at the OLF were evaluated again September 7. Both seeps still showed areas of active ground water seepage that is being drained by Diversion Berm #3. A French Drain system was designed that could be used (when or if required) to assist drainage of these wet areas off the landfill to the west perimeter ditch.

A minor slump was observed in early 2006 on the edge of the west perimeter ditch of the OLF. The area of slumping soil was delineated with pin flags, and the extent defined with the field GPS to provide a snapshot of the aerial extent of the slump. Photographs were also taken to help determine if there are any subtle changes over time. The slump appears to be relatively stable, and is not currently a threat to the integrity of the OLF cap or the perimeter ditch. The slump will continue to be monitored during both scheduled inspections and unscheduled visits to the area.

2.4 General Site M&O

The Site will be managed and maintained to protect the remediation activities that have taken place in the closure of the Site. Assessment of the Site will be performed on both a scheduled and continuous basis.

2.4.1 Rocky Flats Site Road Upgrades

Several dirt roads in the area of the former Industrial Area (IA) were in poor repair, and during times of high precipitation were nearly impassible. To maintain access to all sections of the Site for surveillance and maintenance work and reduce potential ecological damage, the worst of the problem areas on these roads were improved. Depending on the specific problem being addressed, the improvements included road base, geotextile fabric, rock water crossings, and the application of a surfactant which acts as a fixative.

The road improvements started August 7. Although the work started out well, several areas were identified that required preliminary work to support the road upgrades. Specific problem areas included a sinkhole likely related to a former sanitary sewer manhole, an area in the former IA with chronically-wet soil, and an abandoned culvert. Culverts were installed across Functional Channel (FC)-4 to support a new east-west road traversing the former IA. Surfactant was applied September 8. The subcontractor rolled and compacted the roads one final time on September 11 prior to de-mobilizing the equipment.

The subcontractor returned the week of September 25 to perform a second phase of upgrades to several additional roads at the Site. Road base was used to upgrade access roads in the former IA and to construct work pads around the ETPTS and the MSPTS. This second phase of work was completed October 3 when the surfactant was applied.

2.4.2 Erosion Control

The existing erosion controls are maintained and repaired to protect the bare soil areas until the vegetation can stabilize the soil. Assessing the erosion control is especially important following high wind events which are common at the Site. Areas lacking sufficient vegetative cover were reseeded to assure adequate establishment of the native vegetation in these areas. Additional erosion control information, specifically related to ecological matters, is covered in Section 6.3.

Maintenance of the Site erosion control required continued effort throughout the 3rd quarter of CY 2006, especially following high wind or high precipitation events. Replacement of the stakes and/or wire spikes originally used to secure the erosion control matting was required in many areas. In areas of very rocky soil, a common characteristic of Rocky Flats alluvium, staking was ineffective and large rocks and cobbles were used to secure the matting.

Erosion wattles were also loosened and displaced by the wind and rain, and required restaking. In areas where the soil allowed, the original stakes were replaced with longer stakes to allow deeper penetration of the stake in the soil to better hold the wattle.

Several high-precipitation rain events occurred during the 3rd quarter of CY 2006, which initiated investigations of the Site to assess potential erosion or other damage. In late June a heavy rainfall event occurred that required erosion control repairs in early July on the hillside east of FC-5 where previous rainfall events had eroded soil along the wattles. Wattles on the hillside were repositioned so they were placed along a contour line rather than running almost parallel with the direction of water flow (as originally installed). Old wattle materials were placed in the eroded cuts to stop any further soil erosion and facilitate these areas filling with sediment. The eroded cuts along the edge of the riprap area of FC-5 were filled with riprap to minimize further downcutting. Additional erosion control repairs were made in FC-1 where wattles had been placed previously.

Approximately 2 inches of rain fell at the site July 7–9 (based on National Renewable Energy Laboratory data). Erosion control surveys were conducted July 10 to evaluate any problems. Observations were also made of the areas repaired the week of July 3. No problems were observed.

In August the field crew replaced erosion controls in several areas, including sensitive areas where the new roads were being constructed. Wattles that had been destroyed or blown out of place were repaired/replaced on the OLF and on the hillside south of FC-4 (east of the SW056 slump). Water bars were dug to divert any heavy rains into FC-5. Erosion control matting was added to several areas that appeared to be potentially prone to erosion based on recent storm events. Overseeding and erosion matting replacement was completed at the PLF, the OLF, the former Building 371 area, the hillside east of FC-5, and south of the FC-4 area.

2.4.3 Site Security

2.4.3.1 Fence Maintenance and Construction

The security of the Site is assessed on a continuous basis. The perimeter fence is maintained and replaced as required. Posts are installed and wire replaced and/or repaired as necessary to maintain an intact fence. Excess or unnecessary gates in the perimeter fence are being removed and replaced with fence to reduce the number of access points to the Site.

In August a Statement of Work was issued for a subcontract to support Site fencing needs. The Statement of Work included scope for assistance in making minor adjustments to the DOE Retained Land Fence location, construction of the fence around the Central Operable Unit, and for future fence repairs (as needed) after the initial fence construction is complete. A brief prebid site tour for the potential vendors was held the morning of September 12. Proposals were submitted September 15. The minor adjustments to the fence location were performed in early October.

2.4.3.2 Security Issues

Surveillance of the RFS was initiated April 19. The surveillance is performed during times when LM personnel such as oversight, monitoring and maintenance, and the field sampling crews are not normally in the field. These times include evenings during the week, and continuous coverage Thursday evening through Monday morning.

During this quarter the subcontract surveillance personnel made numerous contacts with drivers of vehicles stopped near the Site, and were visible by passing motorists while stationed at their observation stations.

3.0 Surface Water Monitoring

This section presents data collected to satisfy selected surface water monitoring objectives implemented at the Site in accordance with the RFCA (CDPHE et al. 1996) and the 2006 IMP: Summary and Background Documents (DOE 2006e, 2006f). The IMP provides a framework for monitoring in support of closure activities at the Site. This framework includes implementation of a high-resolution surface water-monitoring program that supports data-driven decisions determined by the IMP Data Quality Objectives (DQO) process. Figure 3–1 shows a map with the surface water monitoring locations operating in the 3rd quarter of CY 2006.

This Quarterly Report presents data collected during the 3rd quarter of CY 2006 (July–September 2006). This section includes:

- An evaluation of analytical results as required for the Point of Compliance (POC), Point of Evaluation (POE), PLF, and OLF monitoring objectives;
- A discussion of investigative and non-POC monitoring; and
- Analytical water-quality data available in the following format:
 - Compact disk (CD) for hard copy distribution

During the 3rd quarter of CY 2006, the surface water-monitoring network successfully fulfilled the targeted monitoring objectives as required by the Site IMP. The network consists of 13 automated gaging stations, seven grab sampling locations, and eight precipitation gages. During the quarter, 13 flow-paced composite samples and 9 grab samples were collected. 1

Prior to the RFETS's declaration of physical completion on October 13, 2005, demonstration of compliance for total uranium concentrations at RFCA POEs used calculated 30-day average values. Subsequent to the declaration of physical completion, compliance for total uranium at POEs is demonstrated using the agreed upon 12-month rolling average calculation for the last day of each month. Based on this new reporting criteria, reportable 12-month rolling average total uranium concentrations continue to be observed in surface water at RFCA POE surface water monitoring station GS10, which is located in the South Walnut Creek upstream of Pond B-1 in the Walnut Creek Basin.

DOE provided formal notification of reportable uranium concentrations at POE GS10 to EPA and CDPHE on July 13, 2006. DOE first became aware of the reportable values when all uranium sample results were validated on July 6, 2006. This notification reported, on a 12-month rolling average basis per the IMP, a single reportable value for the last day of April 2006 (April 30, 2006; 10.19 picocuries per liter [pCi/L]). The RFCA action level for total uranium in Walnut Creek is 10 pCi/L. A more comprehensive water-quality evaluation was detailed in Section 2.2.1.1, "Notification and Source Evaluation for Reportable 12-Month Rolling Total Uranium Values at RFCA Point of Evaluation GS10" of the *Quarterly Report of Site Surveillance and Maintenance Activities: Second Quarter Calendar Year 2006* (DOE 2006h). The Site continues to evaluate, in coordination with the regulators, the measured uranium concentrations at GS10. Recent GS10 data are evaluated in Section 3.3.1 of this report.

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¹ Composite samples consist of multiple aliquots ('grabs') of identical volume. Each grab is delivered by the automatic sampler to the composite container at each predetermined flow-volume or time interval.

All other POE analytes remained below reporting levels as of the end of the 3rd quarter of CY 2006. Erosion and runoff controls, as well as extensive revegetation efforts, have proven to be effective in measurably reducing both sediment transport and constituent concentrations. As of the end of the 3rd quarter of CY 2006, all of the POEs were showing Pu and Am concentrations well below the action level. With the removal of impervious areas resulting in decreased runoff, the stabilization of soils within the drainages, and the progression of revegetation, acceptable water quality is expected to continue.

All water-quality data at the RFCA POCs remain well below the applicable reporting thresholds through the 3rd quarter of CY 2006.

3.1 Point of Compliance (POC) Monitoring

RFCA provides specific standards for Walnut and Woman Creeks below the terminal ponds. This section deals only with monitoring discharges from the terminal ponds (Ponds A-4, B-5, and C-2) and the additional POCs at Indiana Street. Terminal pond discharges are monitored by POCs GS08, GS11, and GS31. Walnut Creek is monitored at Indiana Street by POC GS03. Woman Creek is monitored at Indiana Street by POC GS01. These locations are shown on Figure 3–1.

Sampling for analytes of interest (AoIs) at POCs is performed by collecting continuous flow-paced composite samples. Total Pu, Am, and U^2 are evaluated using volume-weighted 30-day moving averages at the Indiana Street POCs.³

With the implementation of Revision 1 of the IMP (K-H 2005b, October 13, 2005), AoI evaluation at the Indiana Street POCs will continue to use the 30-day average. However, evaluation of AoIs at the terminal pond POCs uses a 12-month rolling average⁴ calculated on the last day of each month.

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² Pu and Am refer specifically to Pu-239,240 and Am-241, respectively. Total U refers to total uranium (the sum of the analyzed isotopes: U-233,234 + U-235 + U-238).

³ The 30-day average for a particular day is calculated as a volume-weighted average of a 'window' of time containing the previous 30 days, which had both flow and an analytical result. Each day has its own discharge volume (measured at the location with a flow meter) and activity (analytical result from the sample in place at the end of that day). Therefore, there are 365 30-day moving averages for a location, which flows all year (366 in a leap year). At locations which monitor pond discharges or have intermittent flows, 30-day averages are calculated as averages of the previous 30 days of greater than zero flow. For days where no activity is available, either due to failed lab analysis, excessive duplicate error ratio (DER), or NSQ for analysis, no 30-day average is reported.

⁴ The 12-month rolling average for the last day of a particular month is calculated as a volume-weighted average of a "window" of time containing the previous 12 months. Each 12-month "window" includes daily discharge volumes (measured at the location with a flow meter) and daily activities (from the sample carboy in place at the end of that day). Therefore, there are twelve 12-month rolling averages for a given calendar year. Days with no flow or no analytical result, either due to failed laboratory analysis, excessive DER, or NSQ for analysis, are not included in the average. When no pond discharge has occurred in the last 12 months, no 12-month rolling average is reported.

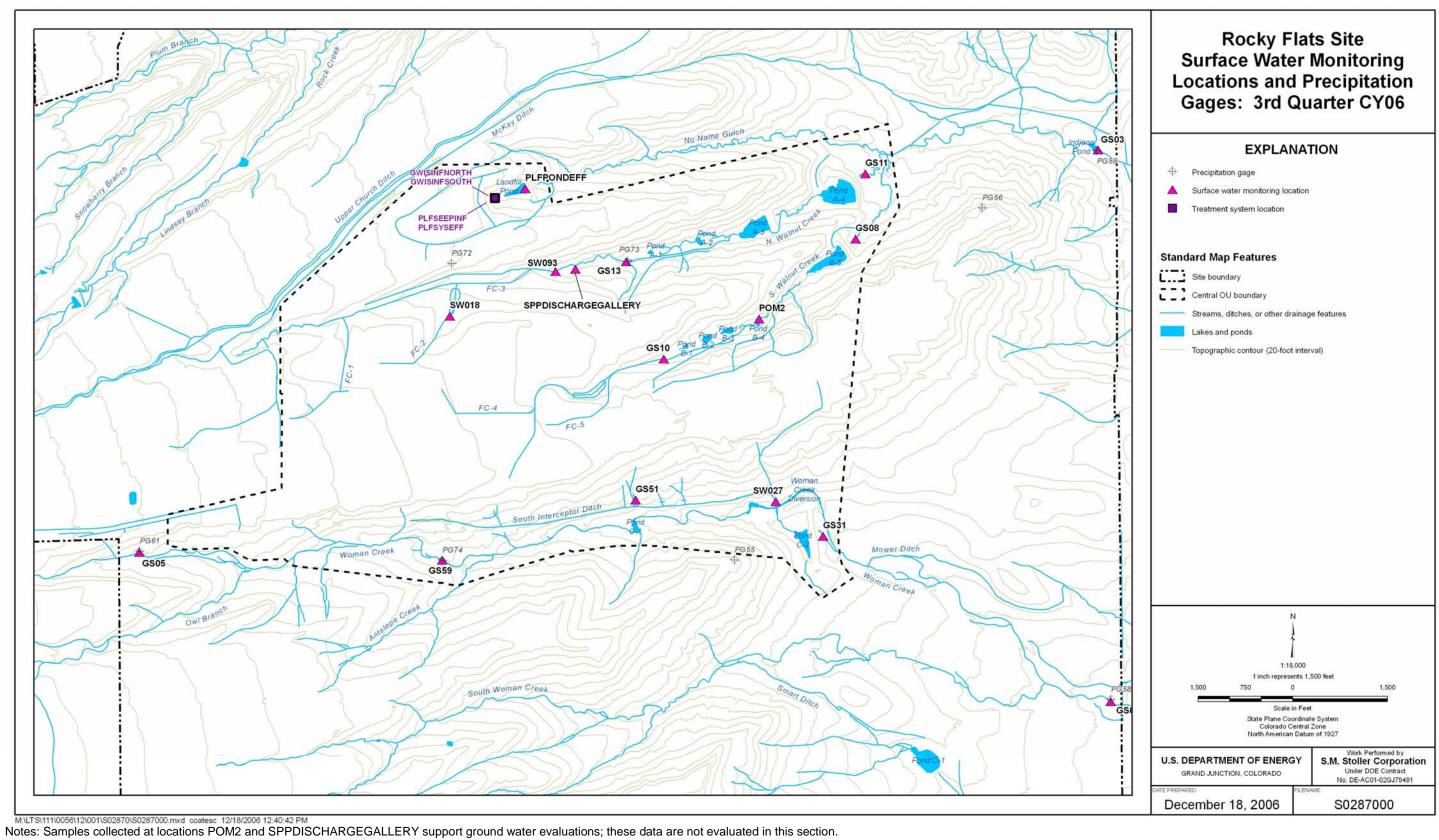


Figure 3–1. Rocky Flats Site Surface Water Monitoring Locations and Precipitation Gages: 3rd Quarter of CY 2006

Generally, analytical data evaluation is performed as preliminary data become available. If an initial qualitative screening indicates that an analytical result is higher than the standard for a particular AoI, then the 30-day or 12-month rolling average is calculated immediately upon receipt of the preliminary result. If the 30-day or 12-month rolling average values are reportable, then validation is requested for all data packages used in the calculation. The desired evaluation frequency is semi-monthly, within 1 week of the 15th and last day of any given month. RFCA requires that DOE, Rocky Flats Project Office (RFPO) inform regulators within 15 days of DOE, RFPO gaining knowledge (not just a suspicion) that an exceedance (verified) has (actually) occurred. The DQO decision rule is:

IF The volume-weighted 30-day moving average for any AoI, as represented by samples from the specified Indiana Street RFCA POCs (GS01 and GS03), exceeds the appropriate RFCA standard (Table 3–1)—

THEN The Site must:

- Notify EPA, CDPHE, and either Broomfield or Westminster, whichever is affected:
- Submit a plan and schedule to evaluate for source location, and implement mitigating action if appropriate; and
- The Site may receive a notice of violation.
- The volume-weighted 12-month rolling average for any AoI, as represented by samples from the specified terminal pond RFCA POCs (GS08, GS11, and GS31), exceeds the appropriate RFCA standard (Table 3–1)—

THEN The Site must:

- Notify EPA, CDPHE, and either Broomfield or Westminster, whichever is affected:
- Submit a plan and schedule to evaluate for source location, and implement mitigating action if appropriate; and
- The Site may receive a notice of violation.

Table 3-1. POC Monitoring RFCA Standards

Analyte	Standard
Am-241	0.15 pCi/L
Pu-239,240	0.15 pCi/L
Total Uranium	10 pCi/L (Walnut Creek); 11 pCi/L (Woman Creek)

Note: The above standards only apply to 30-day or 12-month rolling average values, as appropriate.

The following sections include summary tables and plots showing the 30-day and 12-month rolling averages for the POC analytes. The following evaluations include all results that were not rejected through the verification and validation process. Data are generally presented to decimal places as reported by the laboratories. Accuracy should not be inferred; minimum detectable concentrations/activities and analytical error are often greater than the precision presented. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic

average of the 'real' and the 'duplicate' values. When a sample has multiple 'real' analyses (Site requested 'reruns'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.

Refer to the analytical data accompanying this document for further information.

3.1.1 Location GS01

Monitoring location GS01 is located on Woman Creek at Indiana Street (Figure 3–1). The Woman Creek headwaters, the southern portion of the Central OU (COU), and Pond C-2 contribute flow to GS01.

There has been no significant flow at GS01 since May 13, 2006. The composite sample started on April 11, 2006, was still in progress as of this report. Therefore, data for GS01 are presented through April 10, 2006.

Table 3–2 shows that all of the annual average Pu and Am activities were well below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (1997–2006) are well below 0.15 pCi/L. The average total uranium activities are all well below 11 pCi/L.

Table 3-2. Annual Volume-Weighted Average Radionuclide Activities at GS01 for 1997-2006

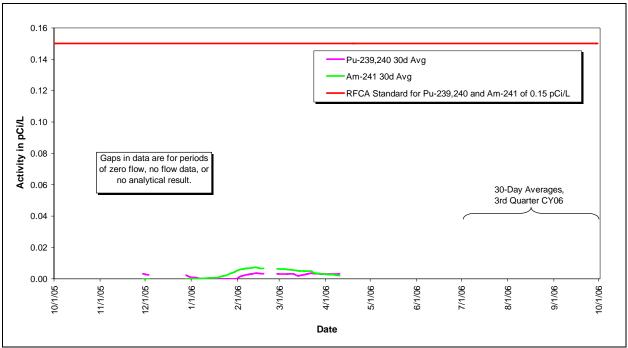
Calendar Year	Volume-Weighted Average Activity (pCi/L)			
Calefidal Teal	Am-241	Pu-239,240	Total Uranium	
1997	0.003	0.007	NA	
1998	0.006	0.006	NA	
1999	0.005	0.008	NA	
2000	0.004	0.003	NA	
2001	0.004	0.006	NA	
2002	0.002	0.001	NA	
2003	0.002	0.004	1.24	
2004	0.003	0.002	3.56	
2005	0.004	0.003	2.50	
2006	0.004	0.003	5.14	
Total (1997–2006)	0.004	0.005	2.13	

Collection of total uranium data began on February 3, 2003. Data through April 10, 2006. NA = not applicable

Figure 3–2 and Figure 3–3 show no occurrences of reportable 30-day averages for the quarter.

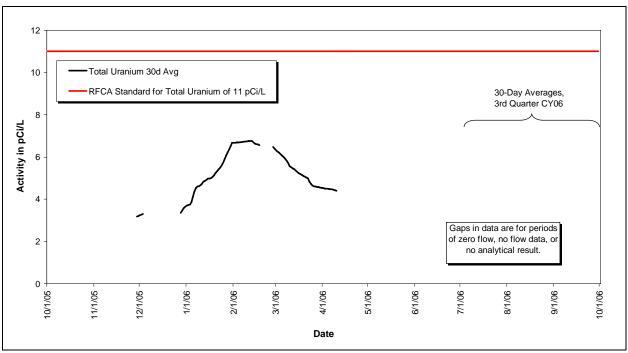
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⁵ As of the publication of this report, the composite sample at GS01 started on April 11, 2006, was still in progress. Therefore, analytical results are not available.



Note: Data through April 10, 2006.

Figure 3–2. Volume-Weighted 30-Day Average Pu and Am Activities at GS01: Calendar Year Ending 3rd Quarter of CY 2006



Note: Data through April 10, 2006.

Figure 3–3. Volume-Weighted 30-Day Average Total Uranium Activities at GS01: Calendar Year Ending 3rd Quarter of CY 2006

3.1.2 Location GS03

Monitoring location GS03 is located on Walnut Creek at Indiana Street (Figure 3–1). The Walnut Creek headwaters, the majority of the COU, Pond A-4, and Pond B-5 contribute flow to GS03.

There has been no flow at GS03 for all CY 2006; the last flow occurred on August 15, 2005. Therefore, no compliance values are presented for CY 2006.

Table 3–3 shows that all of the annual average Pu and Am activities were well below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (1997–2006) are well below 0.15 pCi/L. The average total uranium activities are all well below 10 pCi/L.

Table 3-3. Annual Volume-Weighted Average Radionuclide Activities at GS03 for 1997-2006

Calendar Year	Volume-Weighted Average Activity (pCi/L)			
Calendar rear	Am-241	Pu-239,240	Total Uranium	
1997	0.014	0.026	NA	
1998	0.010	0.014	NA	
1999	0.009	0.015	NA	
2000	0.007	0.005	NA	
2001	0.005	0.009	NA	
2002	0.006	0.012	NA	
2003	0.005	0.006	1.79	
2004	0.008	0.008	1.76	
2005	0.022	0.008	3.95	
2006	NA (no flow)	NA (no flow)	NA (no flow)	
Total (1997-2006)	0.009	0.013	2.22	

Collection of total uranium data began on November 5, 2002. Data through September 30, 2006. NA = not applicable

3.1.3 Location GS08

Monitoring location GS08 is located on South Walnut Creek at the outlet of Pond B-5 (Figure 3–1). The central portion of the former IA contributes flow to GS08.

Pond B-5 has not been discharged during CY 2006. The last discharge occurred during July 14–July 21, 2005 and the outlet works pipe was drained on September 1, 2005. Therefore, no 12-month rolling averages are calculated for September 30, 2006.

Table 3–4 shows that all of the annual average Pu and Am activities were well below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (1997–2006) are well below 0.15 pCi/L. The average uranium activities are all below 10 pCi/L.

Table 3-4. Annual Volume-Weighted Average Radionuclide Activities at GS08 for 1997-2006

Calendar Year	Volume-Weighted Average Activity (pCi/L)			
Calcilual Teal	Am-241	Pu-239,240	Total Uranium	
1997	0.008	0.006	1.69	
1998	0.006	0.008	2.33	
1999	0.015	0.046	1.38	
2000	0.029	0.047	0.93	
2001	0.004	0.006	1.24	
2002	0.003	0.002	0.68	
2003	0.006	0.026	1.37	
2004	0.009	0.009	1.24	
2005	0.021	0.008	6.11	
2006	NA (no discharge)	NA (no discharge)	NA (no discharge)	
Total (1997–2006)	0.012	0.022	1.60	

Note: There has been no Pond B-5 discharge during 2006 through September 30, 2006. NA = not applicable

Figure 3–4 and Figure 3–5 show no occurrences of reportable 12-month rolling averages for the quarter.

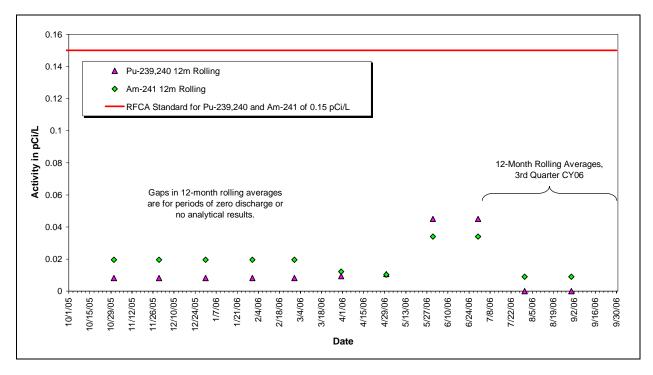


Figure 3–4. Volume-Weighted 12-Month Rolling Average Pu and Am Activities at GS08: Calendar Year Ending 3rd Quarter of CY 2006

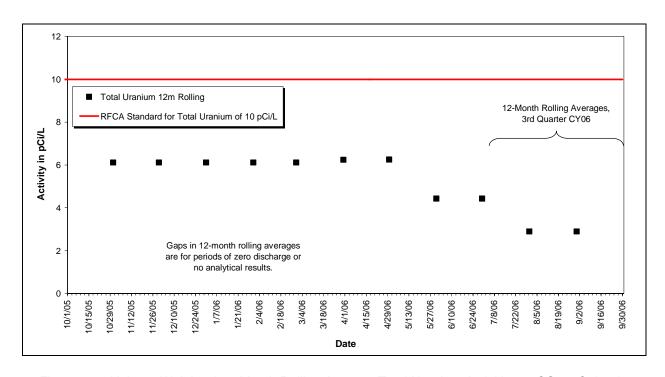


Figure 3–5. Volume-Weighted 12-Month Rolling Average Total Uranium Activities at GS08: Calendar Year Ending 3rd Quarter of CY 2006

3.1.4 Location GS11

Monitoring location GS11 is located on North Walnut Creek at the outlet of Pond A-4 (Figure 3–1). The northern portion of the COU contributes flow to GS11.

Pond A-4 has not been discharged during CY 2006. The last discharge occurred during July 14–July 21, 2005. Therefore, no 12-month rolling averages are calculated after June 30, 2006.

Table 3–5 shows that all of the annual average Pu and Am activities were well below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (1997–2006) are well below 0.15 pCi/L. The average uranium activities are all well below 10 pCi/L.

Table 3-5. Annual Volume-Weighted Average Radionuclide Activities at GS11 for 1997-2006

Calendar Year	Volume-Weighted Average Activity (pCi/L)			
Galeridai Teal	Am-241	Pu-239,240	Total Uranium	
1997	0.005	0.008	1.82	
1998	0.011	0.004	2.18	
1999	0.003	0.007	1.76	
2000	0.001	0.018	2.45	
2001	0.003	0.002	2.89	
2002	0.003	0.000	2.29	
2003	0.003	0.002	2.91	
2004	0.006	0.002	2.71	
2005	0.022	0.002	1.78	
2006	NA	NA	NA	
Total (1997–2006)	0.006	0.006	2.19	

Note: There has been no Pond A-4 discharge during 2006 through September 30, 2006. NA = not applicable

Figure 3–6 and Figure 3–7 show no occurrences of reportable 12-month rolling averages for the quarter.

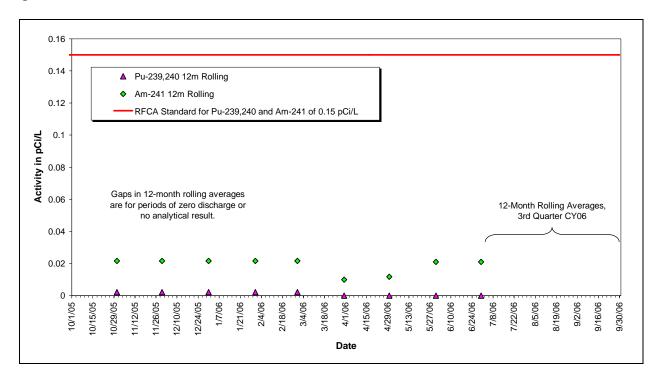


Figure 3–6. Volume-Weighted 12-Month Rolling Average Pu and Am Activities at GS11: Calendar Year Ending 3rd Quarter of CY 2006

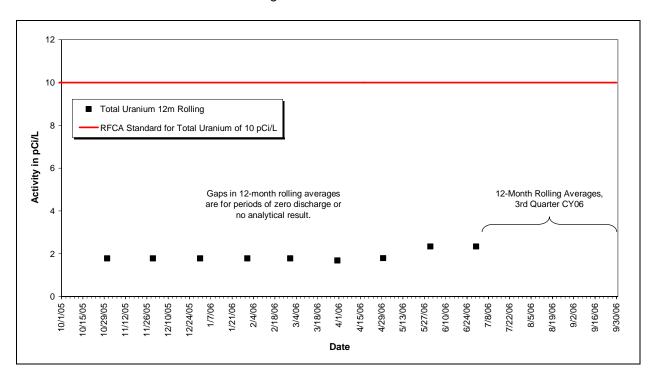


Figure 3–7. Volume-Weighted 12-Month Rolling Average Total Uranium Activities at GS11: Calendar Year Ending 3rd Quarter of CY 2006

3.1.5 Location GS31

Monitoring location GS31 is located on Woman Creek at the outlet of Pond C-2 (Figure 3–1). The southern portion of the COU contributes flow to GS31.

Pond C-2 has not been discharged during CY 2006. The last discharge occurred during July 1–July 14, 2005. Therefore, no 12-month rolling averages are calculated after June 30, 2006.

Table 3–6 shows that all of the annual average Pu and Am activities were below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (1997–2006) are below 0.15 pCi/L. The average uranium activities are all well below 11 pCi/L.

Table 3-6. Annual Volume-Weighted Average Radionuclide Activities at GS31 for 1997-2006

Calendar Year	Volume-Weighted Average Activity (pCi/L)			
Calendar rear	Am-241	Pu-239,240	Total Uranium	
1997	0.008	0.017	2.10	
1998	0.018	0.003	2.53	
1999	0.010	0.043	2.70	
2000	No C-2 Discharge	No C-2 Discharge	No C-2 Discharge	
2001	0.013	0.021	1.25	
2002	0.015	0.089	2.43	
2003	0.006	0.015	1.62	
2004	0.010	0.021	1.65	
2005	0.008	0.020	4.07	
2006	NA	NA	NA	
Total (1997-2006)	0.011	0.019	2.13	

Note: There has been no Pond C-2 discharge during 2006 through September 30, 2006. NA = not applicable

Figure 3–8 and Figure 3–9 show no occurrences of reportable 12-month rolling averages for the quarter.

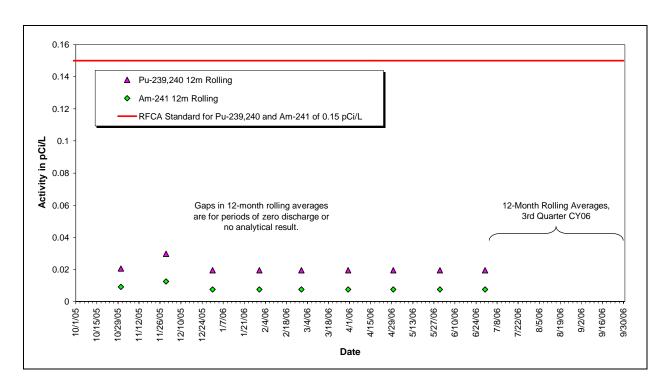


Figure 3–8. Volume-Weighted 12-Month Rolling Average Pu and Am Activities at GS31: Calendar Year Ending 3rd Quarter of CY 2006

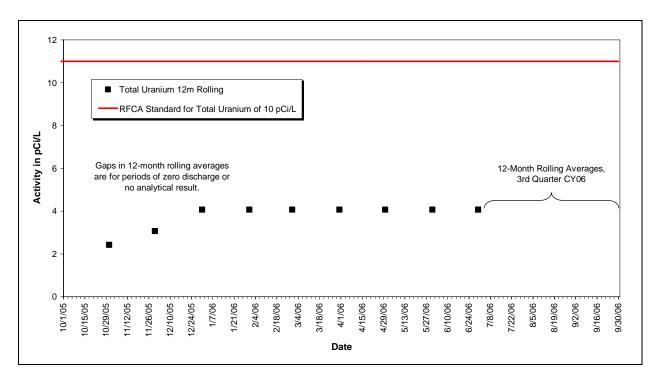


Figure 3–9. Volume-Weighted 12-Month Rolling Average Total Uranium Activities at GS31: Calendar Year Ending 3rd Quarter of CY 2006

3.2 Non-POC Monitoring

This objective is intended to evaluate nitrate concentrations in Walnut Creek by monitoring at the Walnut Creek POCs (Table 3–7) during pond discharges only. Monitoring is intended to demonstrate compliance with surface water standards (Table 3–8) by using 12-month rolling averages at the terminal pond POCs (GS08 and GS11), and by using the 85th percentile of 30-day averages for the preceding calendar year at the Indiana Street POC (GS03).

Table 3–7. Non-POC Monitoring Station Designators

POC	Monitoring Station Designators
Pond A-4	GS11
Pond B-5	GS08
Walnut Creek at Indiana Street	GS03

Table 3–8. Non-POC Monitoring RFCA Standards

Analyte	Standard
Nitrate	10 mg/L

Note: The above action levels only apply to 30-day 85th percentile or 12-month rolling average values, as appropriate.

Generally, analytical data evaluation is performed as preliminary data become available. If an initial qualitative screening indicates that an analytical result is higher than the action level for a particular AoI, then the 30-day 85th percentiles or 12-month rolling averages are calculated immediately upon receipt of the preliminary result. If the 30-day 85th percentile or 12-month rolling average values are reportable, then validation is requested for all data packages used in the calculation. The desired evaluation frequency is semi-monthly, within 1 week of the 15th and last day of any given month. RFCA requires that DOE inform regulators within 15 days of DOE gaining knowledge (not just a suspicion) that an exceedance (verified) has (actually) occurred. The DQO decision rule is:

- IF The volume-weighted 12-month rolling average for nitrate, as represented by samples from the specified terminal pond non-POC monitoring locations (GS08 and GS11), exceeds the appropriate RFCA standard—
- **THEN** DOE must notify EPA and CDPHE within 15 days of DOE gaining knowledge that an exceedance (verified) has occurred to initiate the consultative process.
- IF The 85th percentile of the volume-weighted 30-day moving averages of a given calendar year for nitrate, as represented by samples from non-POC monitoring location GS03 exceeds the appropriate RFCA standard—
- **THEN** DOE must notify EPA and CDPHE within 15 days of DOE, RFPO gaining knowledge that an exceedance (verified) has occurred to initiate the consultative process.

Implementation of this objective will begin with the first Walnut Creek terminal pond discharge in CY 2006. Data presentation and evaluation under this objective will be included when available. No Walnut Creek pond discharges occurred in the 3rd Quarter of CY 2006.

3.3 Point of Evaluation (POE) Monitoring

This section deals only with POE monitoring of flow from the COU upstream of the ponds for adherence with the RFCA Action Level Framework. POE monitoring is performed in North Walnut Creek, South Walnut Creek, and the South Interceptor Ditch (SID) at locations SW093, GS10, and SW027, respectively.

Sampling for AoIs at POEs is performed by collecting continuous flow-paced composite samples. Total Pu, Am, U⁶, Cr, and Be, and dissolved Ag and Cd are evaluated using volume-weighted averages at POEs.

With the implementation of Revision 1 of the IMP (K-H 2005b, October 13, 2005), radionuclide evaluations at the POEs use a 12-month rolling average⁷ calculated on the last day of each month. Metals AoIs are evaluated using the 85th percentile of 30-day averages⁸ for the preceding calendar year.

Generally, analytical data evaluation is performed as preliminary data become available. If an initial qualitative screening indicates that an analytical result is higher than the action level for a particular AoI, then the 30-day or 12-month rolling average is calculated immediately upon receipt of the preliminary result. If the 30-day or 12-month rolling average values are reportable, then validation is requested for all data packages used in the calculation. The desired evaluation frequency is semi-monthly, within 1 week of the 15th and last day of any given month. RFCA requires that DOE, RFPO inform regulators within 15 days of DOE, RFPO gaining knowledge (not just a suspicion) that an exceedance (verified) has (actually) occurred. The DQO decision rules are:

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⁶ Pu and Am refer specifically to Pu-239,240 and Am-241, respectively. Total U refers to total uranium (the sum of the analyzed isotopes: U-233,234 + U-235 + U-238).

⁷ The 12-month rolling average for the last day of a particular month is calculated as a volume-weighted average of a "window" of time containing the previous 12 months. Each 12-month "window" includes daily discharge volumes (measured at the location with a flow meter) and daily activities (from the sample carboy in place at the end of that day). Therefore, there are twelve 12-month rolling averages for a given calendar year. Days with no flow or no analytical result, either due to failed laboratory analysis, NSQ for analysis, or excessive duplicate error ratio (DER), are not included in the calculations. When no discharge has occurred in the last 12 months, no 12-month rolling average is reported.

⁸ The 30-day average for a particular day is calculated as a volume-weighted average of a 'window' of time containing the previous 30 days, which had both flow and an analytical result. Each day has its own discharge volume (measured at the location with a flow meter) and concentration (analytical result from the sample in place at the end of that day). Therefore, there are 365 30-day moving averages for a location, which flows all year (366 in a leap year). At locations which have intermittent flows, 30-day averages are calculated as averages of the previous 30 days of greater than zero flow. For days where no concentration is available, either due to failed lab analysis, excessive relative percent difference (RPD), or NSQ for analysis, no 30-day average is reported.

- IF The volume-weighted 12-month rolling average for any radionuclide AoI, as represented by samples from the specified RFCA POEs (GS10, SW027, and SW093), exceeds the appropriate RFCA action level (Table 3–9)—
- **THEN** The Site must notify EPA and CDPHE, evaluate for source location, and implement mitigating action ¹⁰ if appropriate. ¹¹
- The 85th percentile of the volume-weighted 30-day moving averages of a given calendar year for any metals AoI, as represented by samples from the specified RFCA POEs (GS10, SW027, and SW093) exceeds the appropriate RFCA action level (Table 3–9)—
- **THEN** The Site must notify EPA and CDPHE, evaluate for source location, and implement mitigating action if appropriate.

Analyte	Action Level		
Am-241	0.15 pCi/L		
Pu-239,240	0.15 pCi/L		
Total Uranium	10 pCi/L (GS10 and SW093); 11 pCi/L (SW027)		
Total Be	4 μg/L		
Dissolved Cd	1.5 μg/L		
Total Cr	50 μg/L		
Dissolved Ag	0.6 ug/L		

Table 3-9. POE Monitoring RFCA Action Levels

Note: The above action levels only apply to 30-day or 12-month rolling average values, as appropriate.

The following evaluations include all results that were not rejected through the verification and validation process. Data are generally presented to decimal places as reported by the laboratories. Accuracy should not be inferred; minimum detectable concentrations/activities and analytical error are often greater than the precision presented. When a sample has a corresponding field duplicate, the value used in calculations is the arithmetic average of the 'real' and the 'duplicate' values. When a sample has multiple 'real' analyses (Site requested 'reruns'), the value used in calculations is the arithmetic average of the multiple 'real' analyses.

Refer to the analytical data accompanying this document for additional information.

3.3.1 Location GS10

Monitoring location GS10 is located on South Walnut Creek just upstream of the B-Series Ponds (Figure 3–1). The central portion of the COU contributes flow to GS10 through FC-4 and FC-5.

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⁹ Appropriate action levels for volume-weighted 30-day and 12-month rolling averages are specified for individual contaminants in RFCA.

¹⁰ Mitigating action may include, but not be limited to, the following examples: (1) immediate action to halt a discharge or contain a spill; or (2) use of upstream monitoring data to seek out and mitigate upstream contaminant sources.

¹¹ RFCA may actually specify consequences for an exceedance of any action level (not just those for AoIs) at any location within the segment (not just at the consensus monitoring points). This decision rule presents the consensus decision rule that drives our monitoring activities. It is an implementation, rather than a reiteration, of RFCA.

Table 3–10 shows that many of the annual average Pu and Am activities at GS10 were greater than 0.15 pCi/L during active Site closure. However, a significant reduction in both Pu and Am activities has been observed following Site closure. With the completion of the FCs, implementation of enhanced erosion controls, revegetation, soil stabilization, and lack of substantial runoff, transport of Pu and Am has been virtually eliminated.

Table 3-10. Annual Volume-Weighted Average Radionuclide Activities at GS10 for 1997-2006

Calendar Year	Volume-Weighted Average Activity (pCi/L)		
	Am-241	Pu-239,240	Total Uranium
1997	0.266	0.260	2.78
1998	0.109	0.158	3.06
1999	0.274	0.139	2.49
2000	0.421	0.195	2.23
2001	0.075	0.080	2.91
2002	0.087	0.061	2.88
2003	0.117	0.113	2.68
2004	0.136	0.314	2.48
2005	0.185	0.238	8.27
2006	0.009	0.014	11.3
Total (1997–2006)	0.191	0.175	3.13

Note: Data through October 27, 2006.

Prior to the Site's declaration of physical completion on October 13, 2005, demonstration of compliance for total uranium concentrations at RFCA POEs used calculated 30-day average values. Subsequent to the declaration of physical completion, compliance for total uranium at POEs is demonstrated using the 12-month rolling average calculation for the last day of each month, per the current IMP.

Figure 3–11 shows reportable 12-month rolling averages for total uranium during the quarter. Details regarding notification and source evaluation are detailed in Section 2.2.1.1, "Notification and Source Evaluation for Reportable 12-Month Rolling Total Uranium Values at RFCA Point of Evaluation GS10" of the *Quarterly Report of Site Surveillance and Maintenance Activities:* Second Quarter Calendar Year 2006 (DOE 2006h). The Site continues to evaluate, in coordination with the regulators, the measured uranium concentrations at GS10. Recent data are summarized below in Section 3.3.1.1.

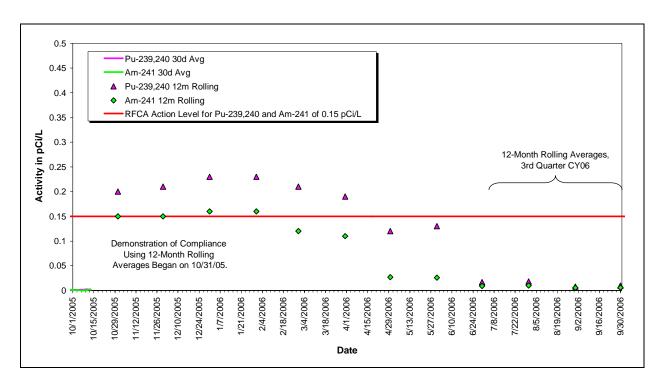


Figure 3–10. Volume-Weighted Average Pu and Am Compliance Values at GS10: Calendar Year Ending 3rd Quarter of CY 2006

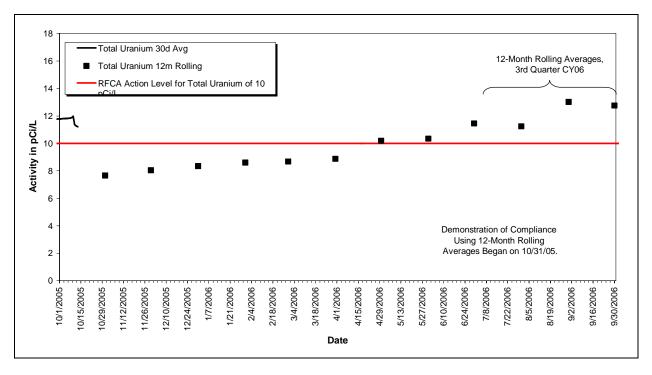


Figure 3–11. Volume-Weighted Average Total Uranium Compliance Values at GS10: Calendar Year Ending 3rd Quarter of CY 2006

Table 3–11 shows that all of the annual average metals concentrations were less than the action level. Additionally, the long-term metals averages (1997–2006) were all less than the action

levels. Figure 3–12 shows that none of the 85th percentile 30-day average metals concentrations were reportable for the quarter.

Table 3–11. Annual Volume-Weighted Average Hardness and Metals Concentrations at GS10 for 1997–2006

Calendar Year	Volume-Weighted Average Concentration (μg/L)					
Calefidai feai	Hardness [mg/L]	Total Be	Dissolved Cd	Total Cr	Dissolved Ag	
1997	138	0.50	0.09	4.05	0.11	
1998	162	0.15	0.13	3.32	0.20	
1999	139	0.16	0.07	4.08	0.15	
2000	181	0.21	0.11	3.65	0.11	
2001	222	0.32	0.11	5.95	0.11	
2002	277	0.24	0.09	5.38	0.10	
2003	228	0.22	0.10	6.91	0.12	
2004	227	0.60	0.10	13.15	0.13	
2005	401	0.88	0.06	17.49	0.15	
2006	582	0.51	0.05	1.34	0.10	
Total (1997-2006)	205	0.34	0.10	6.40	0.13	

Note: Hardness units in milligrams per liter (mg/L). Data through October 27, 2006.

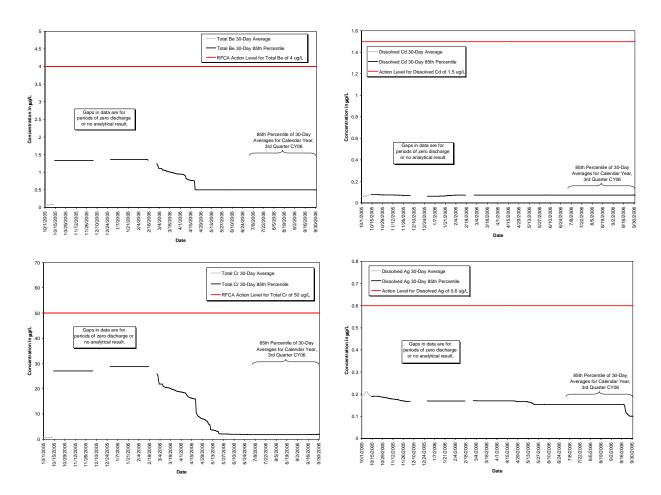


Figure 3–12. Volume-Weighted Average Metals Compliance Values at GS10: Calendar Year Ending 3rd Quarter of CY 2006

3.3.1.1 Summary of Recent Reportable 12-Month Rolling Total Uranium Values at RFCA Point of Evaluation GS10

This section addresses the Site's July 13, 2006, notification of recently observed reportable concentrations of uranium in surface water at RFCA POE surface water monitoring location GS10, which is located in South Walnut Creek upstream of Pond B-1 in the Walnut Creek basin (Figure 3–13). Reportable uranium levels continue to be observed at GS10. The Site continues to evaluate, in coordination with the regulators, the measured uranium concentrations at GS10.

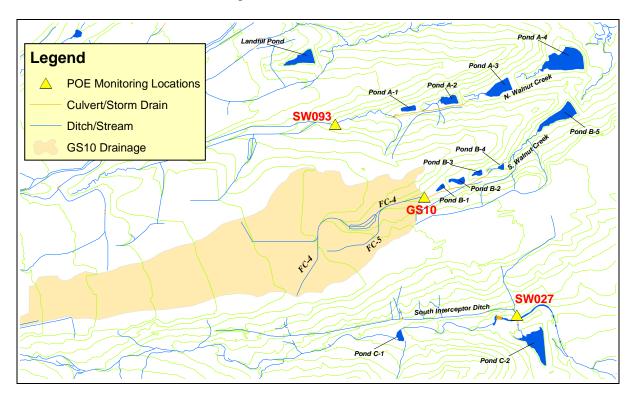


Figure 3-13. Location Map for RFCA Points of Evaluation

DOE first became aware of the reportable 12-month rolling averages when all uranium sample results were validated on July 6, 2006. To meet the RFCA commitment, DOE transmitted notification to EPA and CDPHE within the 15-day reporting period, which ended July 21, 2006. In addition, RFCA also requires that DOE, within 30 days of gaining knowledge of the reportable results, submit to EPA and CDPHE a source evaluation plan addressing reportable values. The July 13, 2006, notification letter served as both the comprehensive notice and the plan for that source evaluation, based on consideration for other evaluative work already performed in this drainage.

The characteristics of the current reportable period for uranium at GS10 are consistent with those for the previous reportable period during the summer of 2005. DOE provided notice for that reportable period on August 16, 2005 (05-DOE-00522).

The calculated 12-month rolling average for total uranium (U) triggered the reporting requirements under RFCA Attachment 5, Section 2.4 (B) for April 30 through June 30, 2006 (for

details, see Table 3-12)¹². All data used in the calculation of the 12-month rolling average have been validated. The end of the reportable period will be determined by subsequent data. Recent analytical results are listed in Table 3-13.

Table 3–12. Reportable 12-Month Rolling Average Values for RFCA POE Monitoring Location GS10

Analyte	Dates of Reportable Values	Range of 12-Month Rolling Average Values (pCi/L)
Total Uranium	4/30/06-to be determined	10.19–13.01

The RFCA Action Level for total uranium in Walnut Creek is 10 pCi/L

Table 3–13. Recent Analytical Results for Composite Samples Collected at GS10

Composite Sample Start Date	Total Uranium Analytical Result (pCi/L)
7/3/2006	8.47
7/10/2006	10.437
7/27/2006	10.410
8/10/2006	9.815
8/30/2006	5.736
10/2/2006	8.664
10/24/2006	11.709

This evaluation for South Walnut Creek monitoring station GS10, shown on Figure 3–13, covers data received through December 5, 2006. Laboratory analysis of one composite sample collected for the period October 28–November 27, 2006, has not been completed. The composite sample, started on November 27, 2006, is still in progress. The following are included in this assessment:

- Evaluation of ongoing automated surface water monitoring at GS10;
- Estimation of uranium loads at GS10; and
- Evaluation of water-quality trends and correlations at GS10.

Downstream Water Quality Monitoring

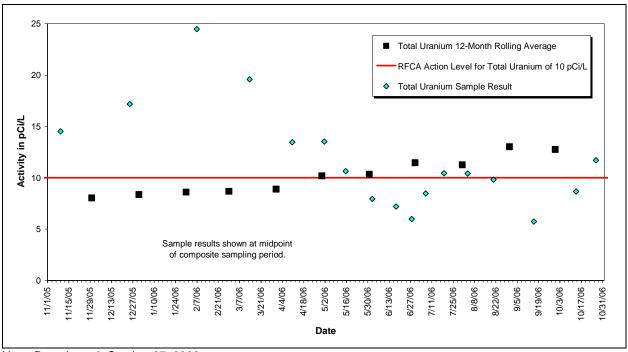
Water flowing through GS10 also passes through the lower B-series ponds (Ponds B-4 and B-5) and South Walnut Creek before leaving the Site. RFCA POCs GS08 (Pond B-5 outlet) and GS03 (Walnut Creek at Indiana Street) again monitor this water during Pond B-5 discharges. The last Pond B-5 discharge occurred on July 14–21, 2005.

GS10 Monitoring Results

As specified in the IMP, the Site currently evaluates 12-month rolling average values for selected radionuclides at POE surface water monitoring locations. Prior to the Site declaration of physical completion (October 13, 2005), demonstration of compliance for total uranium concentrations at RFCA POEs used calculated 30-day average values. Subsequent to the declaration of physical

¹² The initial July 13, 2006, notification was for a reportable on April 30, 2006, only. Subsequent data have extended the reportable period through September 30, 2006.

completion, compliance for total uranium at POEs is demonstrated using the agreed upon 12-month rolling average calculation for the last day of each month. Results for recent 12-month rolling average values using available data at GS10 are summarized in Table 3–12. Figure 3–14 shows the calculated compliance values and the individual sample results at GS10 for the previous calendar year period.



Note: Data through October 27, 2006

Figure 3–14. POE Monitoring Station GS10: Compliance Values and Individual Sample Results for Total Uranium (November 1, 2005–October 27, 2006)

All analytical results for the composite samples collected during the period of reportable values have been validated. A review of historical GS10 monitoring data shows that these results are measurably higher than those for previous years (Figure 3–15). More recent uranium results suggest a possible return to near previously observed levels. The significant reduction in runoff following Site closure can also be clearly seen in Figure 3–15.

Data Summary and Analysis

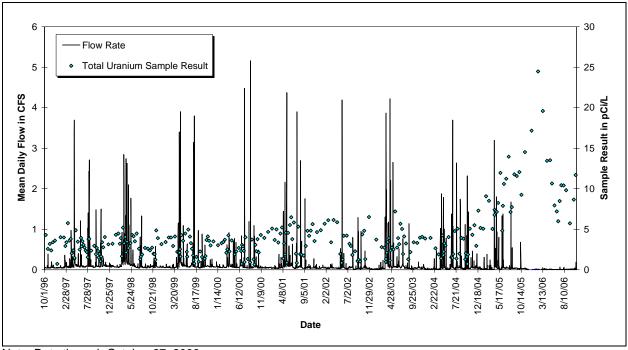
The following data evaluation for GS10 includes all surface water data available as of December 5, 2006. Monitoring data were extracted from the former Soil and Water Database or the current SEEPro database. The following list describes the environmental data compilation process:

• Individual sample result values are calculated as arithmetic averages of real and field duplicate results when both results are from the same sampling event ¹³;

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¹³ Radionuclide data pairs are averaged when the duplicate error ratio (DER) is less than 1.5; sample pairs with DER ratios in excess of 1.5 are not used due to inferred lack of confidence in either result.

- When available, Site-requested laboratory reruns are averaged with initial runs for the same sampling event;
- Laboratory duplicate and replicate quality control (QC) results are not used;
- When negative values for actinide measurement are returned from the laboratories due to blank correction, 0.0 pCi/L is used in the calculations;
- Only total radionuclide measurements are used; and
- Data that did not pass validation (rejected data) are not used.



Note: Data through October 27, 2006

Figure 3–15. POE Monitoring Station GS10: Hydrograph and Individual Sample Results for Total Uranium (October 1, 1996–October 27, 2006)

Verification and Validation of Surface water Analytical Results

Prior to Site closure, all surface water isotopic data are either verified or validated, based on criteria determined by the Kaiser-Hill Analytical Services Division, or at the special request of the requestor. Approximately 75 percent of all isotopic data are verified and the remaining 25 percent are validated. Validation is typically determined randomly for each subcontracted laboratory, based on the specific analytical suites. This random validation selection may or may not routinely include POE or POC locations. However, when reportable values are observed, all analytical results used in the calculations receive formal validation.

Under current LM, all data are validated prior to being loaded to the SEEPro database.

<u>High Resolution Inductively Coupled Mass Spectrometry (HR ICP/MS) and Thermal Ionization</u> Mass Spectrometry (TIMS) Analyses

Prior to Site closure, ground water and surface water samples from select locations were sent to Los Alamos National Laboratory (LANL) for HR ICP/MS and/or TIMS analyses. These analytical methods measure mass ratios of four uranium isotopes (masses 234, 235, 236, and 238) and are detailed in the reports titled "Uranium in Surface Soil, Surface Water, and Groundwater at the Rocky Flats Environmental Technology Site," dated June 2004 and in the "Interim Measure/Interim Remedial Action for Groundwater at the Rocky Flats Environmental Technology Site," dated June 21, 2005 (Janecky 2006). Isotopic ratios provide a signature that indicates whether and the extent to which the source of uranium is natural or anthropogenic (man-made). In August 2005, South Walnut Creek surface water samples from SW056, SW141, and GS10, and ground water samples from upgradient wells (91305, 99305, 91203, and 99405) were evaluated using HR ICP/MS and TIMS. The results indicate that, though concentrations of U vary widely, all the ground water and surface water locations produce water samples with a predominantly natural U isotopic signature. Location GS10, however, displayed a higher percentage of anthropogenic uranium than the other locations. Concentrations of U in ground water samples collected in August 2005 from wells located upstream of GS10 vary from less than 5 micrograms per liter (µg/L) at well 91203 (with a 93.4 percent natural U isotopic signature) to nearly 400 µg/L at well 99405 (with an isotopic signature that is 99.9 percent natural U; a previous sample from the original well at this location, 99401, produced a sample with a concentration of just over 650 µg/L U that was 100 percent natural).

The results of all the HR ICP/MS and TIMS analyses are summarized in a report titled "Quantitative Evaluation of Mixture Components in RFETS Uranium Isotopic Analyses: Development & Verification/ Validation of Calculations using an Excel Spreadsheet" by Dr. David R. Janecky, LANL (March 2006; included as Attachment 3 to Section 8 of the Remedial Investigation/Feasibility Study published in June 2006). This report provides a summary of the HR ICP/MS and TIMS results and calculations of uranium isotopic mixtures (mixtures between natural and anthropogenic [enriched and depleted] uranium). Dr. Janecky's analysis concludes that the uranium at GS10 is dominated by natural uranium, with a lesser amount of depleted and minimal enriched uranium. An earlier sample analyzed by LANL, collected in May 2002, shows a generally similar isotopic signature, though the relative fraction of anthropogenic uranium is smaller as shown in Table 3–14.

Table 3–14. Uranium Concentrations and Isotopic Signatures from Samples Collected at GS10 as Reported by LANL

Date	Concentration, µg/L	% Depleted	% Enriched	% Natural
5/1/2002	9.6	22.1	0.04	77.8
8/11/2005	13.2	36.2	0.10	63.7

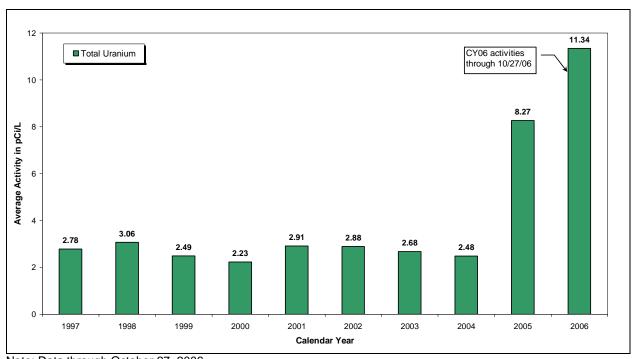
Source: Data are from RI/FS Section 8, Attachment 3, and have been normalized to 100 percent.

The samples from GS10 summarized in Table 3–14 illustrate the isotopic variability of the mixture of direct runoff and ground water that contributes to surface water flow at this location. Over longer periods, this variability may have a greater influence on the characteristics of the uranium in surface water, both concentration and signature. To fully understand this variability,

additional uranium data as it relates to the appropriate water-quality action level would need to be evaluated.

Total Uranium at GS10: Data Summary

Figure 3–16 shows the volume-weighted average annual activity-concentrations (concentration in surface water expressed as activity per unit volume) for total uranium at GS10 during 1997–2006. A measurable increase in concentration is noted starting in 2005.



Note: Data through October 27, 2006

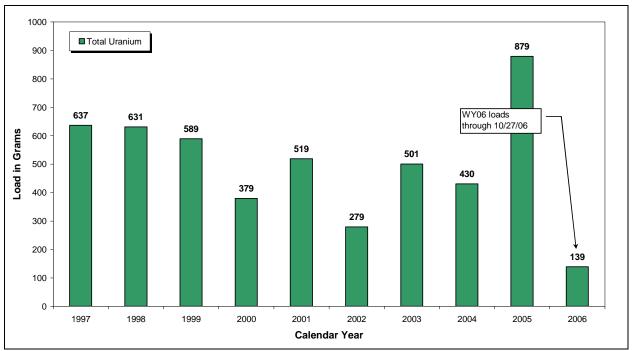
Figure 3-16. Average Annual Total Uranium Concentrations at GS10: 1997-2006

Annual total uranium loads (mass) for GS10 in grams are plotted in Figure 3–17 to show long-term loading at GS10. For 1997–2006, the activity-concentration for each flow-paced composite sample is multiplied by the associated discharge volume to get pCi, then converted to grams and totaled annually. Although reportable compliance values were observed during the 2005–2006 period, and concentrations in Figure 3–16 show a measurable increase, the loads for 2005–2006 are within historical ranges. This suggests that the recently observed increased uranium concentrations at GS10 may be a result of changing hydrologic conditions, and not significant increases of uranium reaching the creek.

Figure 3–18 shows that the higher uranium concentrations are associated with lower flow rates, during periods of extended baseflow sustained by ground water contributions¹⁴. As the area of impervious surfaces in the GS10 drainage was reduced by Site closure (i.e., removal of buildings, asphalt, concrete), direct runoff to GS10 was also reduced. Similarly, removal of Site infrastructure likely resulted in reduced baseflow contributions from domestic and sanitary water

¹⁴ These ground water contributions occur as localized or distributed seeps to the streambed.

leakage.¹⁵ Therefore, ground water contributions to the creek over the same period comprised an increasing portion of the flows monitored at GS10. Ground water data from monitoring wells located near South Walnut Creek show naturally occurring uranium in concentrations that are considerably higher than the surface water action level. Without the attenuation of uranium from ground water sources by direct runoff and infrastructure leakage, increases in surface water uranium concentrations would be expected. More recent uranium data at GS10 show a noticeable decrease (Figure 3–14 and Figure 3–15). At this time it is unclear if this represents a seasonal variation of uranium in surface water (as has been observed at other locations at the Site), or the return of the hydrologic conditions in South Walnut Creek to a state of equilibrium following Site closure. ¹⁶



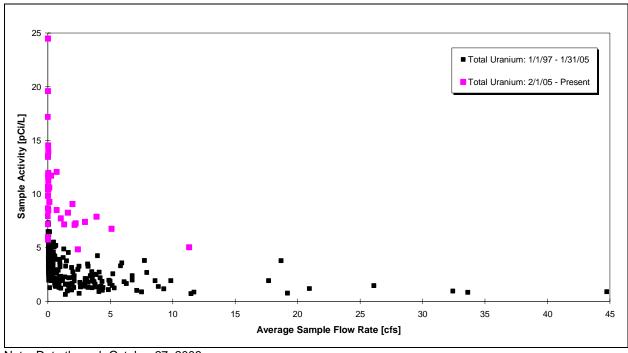
Note: Data through October 27, 2006

Figure 3-17. Annual Total Uranium Loads at GS10: 1997-2006

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¹⁵ Leaks from domestic and sanitary lines are presumed to have lower uranium concentrations than natural ground water sources.

¹⁶ As a result of Site closure, increased infiltration and the use of substantial quantities of dust suppression water can reasonably be assumed to have affected, at least temporarily, the rate at which ground water is reaching the creek.



Note: Data through October 27, 2006

Figure 3–18. Variation of Total Uranium Concentration with Flow Rate at GS10: 1997–2006

Summary and Conclusions

Based on the above evaluation, Site personnel conclude that the recent uranium activities at GS10 are likely a result of changing hydrologic conditions (particularly the increasing ground water component in surface water flows at GS10, relative to conditions that prevailed prior to Site closure), and that no specific remedial action(s) is indicated at this time. The data do not suggest a previously unknown localized source(s) of contamination that warrants targeted remediation. The current conclusions are summarized below:

- Data collected from all terminal pond and fenceline POCs remain well below reporting thresholds for all monitored analytes.
- Recent HR ICP/MS and TIMS analyses for both ground water and surface water samples collected upstream of GS10 all show a predominantly natural uranium signature. While the two analyses of surface water from GS10 indicate the existence of some depleted uranium, the normal variability of direct runoff and ground water flow would be expected to strongly influence the uranium characteristics, both concentration and signature, over longer periods. To fully understand this variability, additional uranium data as it relates to the appropriate water-quality action level would need to be evaluated.
- Ground water data within South Walnut Creek show naturally occurring uranium activities
 considerably higher than the surface water action level. Baseflow at GS10 is sustained by
 ground water expressions in the form of both localized seeps and distributed flow to the
 streambed.
- Surface water data from GS10 show that the higher uranium concentrations are associated with lower flow rates, during periods of extended baseflow sustained by ground water

contributions. As the amount of impervious surface at the Site was reduced, direct runoff to GS10 was also reduced. Similarly, removal of Site infrastructure likely resulted in reduced baseflow contributions from domestic and sanitary water leakage. Therefore, ground water contributions to South Walnut Creek now make up a larger portion of the flows monitored at GS10. Without the attenuation of uranium ground water sources by direct runoff and infrastructure leakage, increases in surface water uranium concentrations would be expected.

3.3.2 Location SW027

Monitoring location SW027 is located at the end of the SID at the inlet to Pond C-2 (Figure 3–1). The southern portion of the COU contributes flow to SW027 through the SID.

SW027 has not flowed since June 14, 2005. Therefore, no 12-month rolling averages are calculated after April 30, 2006. ¹⁷

Table 3–15 shows that the majority of the annual average Pu and Am activities were less than 0.15 pCi/L. The significant increase in 2004 was the result of increased solids transport from disturbed areas associated with the 903 Pad/Lip accelerated actions. However, a significant reduction in both Pu and Am activities has been observed following completion of accelerated actions in the drainage. With the completion of the 903 Pad/Lip actions, implementation of enhanced erosion controls, revegetation, soil stabilization, and lack of substantial runoff, transport of Pu and Am approaching the action level has been virtually eliminated. The total uranium annual average activities are well below 11 pCi/L.

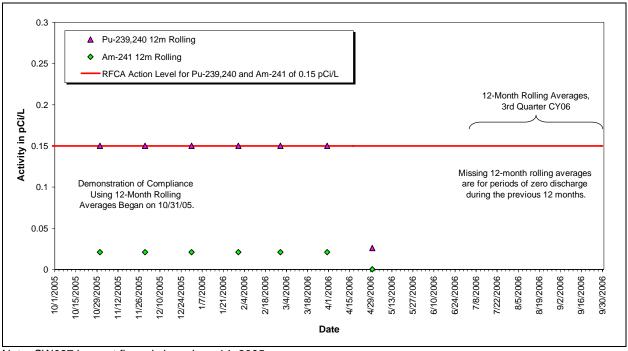
Table 3-15. Annual Volume-Weighted Average Radionuclide Activities at SW027 for 1997-2006

Calendar Year	Volume-Weighted Average Activity (pCi/L)			
Caleffual Teal	Am-241	Pu-239,240	Total Uranium	
1997	0.008	0.036	1.484	
1998	0.021	0.156	3.445	
1999	0.019	0.066	1.897	
2000	0.060	0.348	1.100	
2001	0.006	0.025	1.327	
2002	0.001	0.003	0.531	
2003	0.011	0.080	1.701	
2004	0.413	2.273	1.050	
2005	0.022	0.156	2.341	
2006	NA (no flow)	NA (no flow)	NA (no flow)	
Total (1997-2006)	0.059	0.330	1.82	

Note: No 2006 flow at SW027 through September 30, 2006.

NA = not applicable

¹⁷ The composite sample started on May 18, 2005, was discarded on April 17, 2006, due to non-sufficient quantity (NSQ) for analysis.



Note: SW027 has not flowed since June 14, 2005.

Figure 3–19. Volume-Weighted Average Pu and Am Compliance Values at SW027: Calendar Year Ending 3rd Quarter of CY 2006

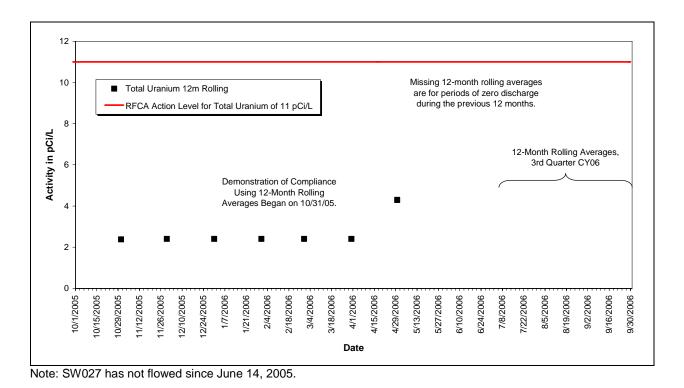


Figure 3–20. Volume-Weighted Average Total Uranium Compliance Values at SW027: Calendar Year Ending 3rd Quarter of CY 2006 Table 3–16 shows that all of the annual average metals concentrations were less than the action level. Additionally, the long-term metals averages (1997–2006) were less than the action levels.

Table 3–16. Annual Volume-Weighted Average Hardness and Metals Concentrations at for 1997–2006

	Volume-Weighted Average Concentration (μg/L)					
Calendar Year	Hardness [mg/L]	Total Be	Dissolved Cd	Total Cr	Dissolved Ag	
1997	112	0.44	0.09	1.71	0.10	
1998	152	0.14	0.15	0.91	0.21	
1999	111	0.03	0.10	1.55	0.24	
2000	150	0.27	0.05	4.14	0.09	
2001	145	0.23	0.07	1.82	0.12	
2002	114	0.12	0.05	2.88	0.11	
2003	148	0.06	0.06	1.75	0.15	
2004	133	0.32	0.06	7.36	0.19	
2005	236	0.08	0.07	2.03	0.19	
2006	NA (no flow)	NA (no flow)	NA (no flow)	NA (no flow)	NA (no flow)	
Total (1997–2006)	138	0.19	0.09	2.37	0.17	

Note: Hardness units in milligrams per liter (mg/L). No 2006 flow at SW027 through September 30, 2006. NA = not applicable

Since no analytical results for the previous calendar year (October 1, 2005–October 1, 2006) are available, no 30-day average values can be calculated. As such, compliance plots for metals at SW027 are not presented.

3.3.3 Location SW093

Monitoring location SW093 is located on North Walnut Creek 1,300 feet upstream of the A-Series Ponds (Figure 3–1). The northern portion of the COU contributes flow to SW093 through FC-2 and FC-3.

Table 3–17 shows that the majority of the annual average Pu and Am activities were below 0.15 pCi/L. Additionally, the long-term Pu and Am averages (1997–2006) are below 0.15 pCi/L. The average total uranium activities are all well below 10 pCi/L.

Table 3–17 shows an increase in Pu and Am activities during 2004. However, a significant reduction in both Pu and Am activities has been observed following Site closure. With the completion of the functional channels, implementation of enhanced erosion controls, revegetation, soil stabilization, and lack of substantial runoff, transport of Pu and Am has been virtually eliminated.

Table 3-17. Annual Volume-Weighted Average Radionuclide Activities at SW093 for 1997-2006

Calendar Year	Volume-Weighted Average Activity (pCi/L)				
Calelidal Teal	Am-241	Pu-239,240	Total Uranium		
1997	0.035	0.052	2.38		
1998	0.020	0.022	2.26		
1999	0.025	0.038	1.95		
2000	0.022	0.040	2.06		
2001	0.011	0.015	2.14		
2002	0.017	0.006	2.67		
2003	0.039	0.056	2.34		
2004	0.622	0.603	2.50		
2005	0.029	0.022	3.61		
2006	0.003	0.007	6.68		
Total (1997-2006)	0.083	0.089	2.42		

Note: Data through October 27, 2006.

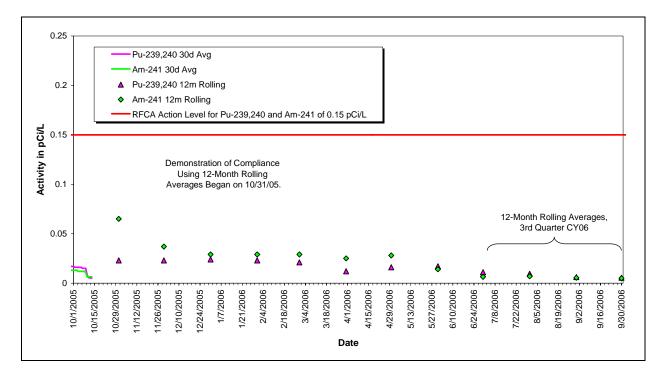


Figure 3–21. Volume-Weighted Average Pu and Am Compliance Values at SW093: Calendar Year Ending 3rd Quarter of CY 2006

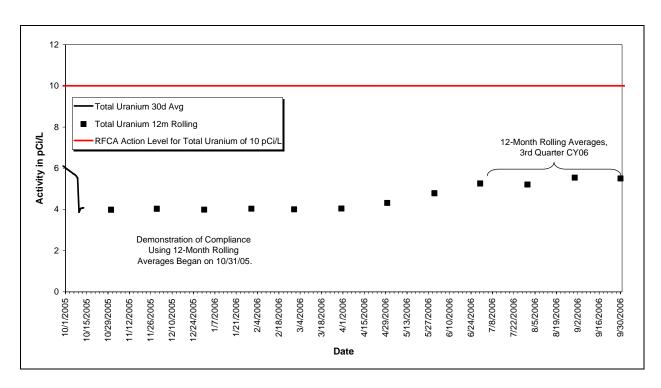


Figure 3–22. Volume-Weighted Average Total Uranium Compliance Values at SW093: Calendar Year Ending 3rd Quarter of CY 2006

Table 3–18 shows that all of the annual average metals concentrations were less than the action level. Additionally, the long-term metals averages (1997–2006) were less than the action levels.

Table 3–18. Annual Volume-Weighted Average Hardness and Metals Concentrations at SW093 for 1997–2006

	Volume-Weighted Average Concentration (μg/L)					
Calendar Year	Hardness [mg/L]	Total Be	Dissolved Cd	Total Cr	Dissolved Ag	
1997	168	0.43	0.07	2.36	0.12	
1998	184	0.14	0.23	2.22	0.22	
1999	152	0.20	0.13	5.08	0.16	
2000	231	0.21	0.08	3.94	0.11	
2001	247	0.36	0.07	6.49	0.11	
2002	365	0.30	0.08	5.95	0.11	
2003	257	0.29	0.09	6.88	0.16	
2004	315	0.57	0.09	12.05	0.12	
2005	337	0.11	0.05	1.92	0.11	
2006	596	0.50	0.05	0.96	0.10	
Total (1997–2006)	237	0.30	0.11	5.07	0.14	

Note: Hardness units in milligrams per liter (mg/L). Data through October 27, 2006.

Figure 3–23 shows that none of the 85th percentile 30-day average metals concentrations were reportable for the quarter.

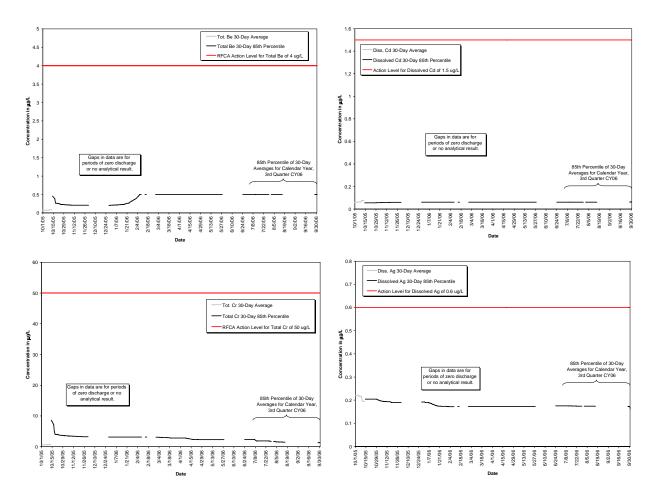


Figure 3–23. Volume-Weighted Average Metals Compliance Values at SW093: Calendar Year Ending 3rd Quarter of CY 2006

3.4 Performance Monitoring

3.4.1 Present Landfill

This surface water-monitoring objective is intended to determine the short- and long-term effectiveness of the remedy. These requirements were initially identified in the *Final Interim Measures/Interim Remedial Action (IM/IRA) for IHSS 114 and RCRA Closure of the RFETS Present Landfill*, "Appendix B: Post-Accelerated Action Monitoring and Long-Term Surveillance and Monitoring Considerations" (DOE 2004), and finalized in the *Present Landfill Monitoring and Maintenance Plan and Post-Closure Plan* (DOE 2006c) including institutional controls, inspection and maintenance, and environmental monitoring.

As part of PLF closure, a passive seep interception and treatment system has been installed to treat landfill seep water and ground water intercept system (GWIS) water. There are three sources of influent to the treatment system: two GWIS pipes, and the PLF seep. Effluent for the treatment system (point discharge) eventually flows to the East Landfill Pond. This section presents the monitoring data for treatment system influent and effluent as well as the East

Landfill Pond if the treatment system effluent exceeds surface water standards. Details regarding surface water monitoring for the PLF can be found in the *Present Landfill Monitoring and Maintenance Plan and Post-Closure Plan* (DOE 2006c) (PLF M&M Plan).

As required by the PLF M&M Plan and detailed in the IMP, seep treatment system monitoring requirements will consist of quarterly sampling until the first CERCLA review. A validated exceedance of a treatment system effluent limit will trigger monthly monitoring for 3 consecutive months. Continued exceedances during the 3-month period will trigger consultation between the RFCA parties to determine whether a change in the remedy is required, additional parameters need to be analyzed, or a different sampling frequency is required. Continued exceedances will also trigger sampling of the East Landfill Pond for those constituent standards that were exceeded in the treatment system effluent. If surface water standards are exceeded in the pond, RFCA parties will be consulted to determine if further sampling is required, if the water in the pond can overflow the East Landfill Pond dam spillway, or if another water management strategy should be applied.

The GWIS influent (if any) to the seep treatment system will also be sampled. The water will be sampled quarterly for 1 year, and the analytical results will be evaluated by the RFCA parties.

PLF sampling locations, data collection protocols, and analyte suites are given in Table 3–19.

Location Code	Location Description	Routine Data Collection	Analytes
GWISINFNORTH	Northern GWIS influent to the treatment system	Quarterly grab samples	VOCs, isotopic uranium, total and dissolved metals, nitrate/nitrite, total mercury
GWISINFSOUTH	Southern GWIS influent to the treatment system	Quarterly grab samples	VOCs, isotopic uranium, total and dissolved metals, nitrate/nitrite, total mercury
PLFSEEPINF	Landfill seep influent to the treatment system	Quarterly grab samples; instantaneous flow rate at sample event	VOCs, isotopic uranium, total and dissolved metals, total mercury
PLFSYSEFF	Effluent from the treatment system	Quarterly grab samples	VOCs, isotopic uranium, total and dissolved metals, SVOCs, total mercury
PLFPONDEFF	East Landfill pond at the downstream (east) end	As needed; triggered by decision rule	As needed; determined by decision rule

Table 3-19. Sampling Locations for Present Landfill

Note: Flow at the seep influent is measured using a 'bucket-and-stopwatch' method

Analytical methodologies and RLs, data reporting procedures, laboratory QA/QC procedures, and laboratory data validation and contractor validation procedures are conducted in accordance with EPA-approved methods. Samples are submitted to an EPA-approved analytical laboratory for the following analysis methods.

- SW-846 Method 8260B—Volatile Organic Compounds (VOCs)
- SW-846 Method 6010B—Metals (Total and Dissolved)
- SW-846 Method 7470A—Mercury (Total)
- SW-846 Method 8270C—Semi-Volatile Organic Compounds (SVOCs)

- Alpha Spectrometry—Isotopic Uranium
- EPA-600 / 4-79-020 Method 353.2—Nitrate/Nitrite

This objective is intended to evaluate water quality for the inflows to the passive seep treatment system at the PLF. Monitoring of the treatment system effluent is intended to demonstrate compliance with surface water standards.

Generally, analytical data evaluation is performed quarterly as data become available. Analytical data from the GWIS (GWISINFNORTH and GWISINFSOUTH) and seep (PLFSEEPINF) influent sources are routinely reported to the RFCA parties. GWIS sampling results will be reviewed by the RFCA parties after 1 year to determine if further sampling is required. The DQO decision rule for the treatment system effluent (PLFSYSEFF) is as follows:

- **IF** Quarterly effluent (PLFSYSEFF) results are greater than surface water standards ¹⁸ listed in the RFCA, Attachment 5, Table 1—
- **THEN** Sampling frequency will be increased to monthly for 3 consecutive months (increased sampling, other than the routine quarterly sampling, will be limited to the constituents that triggered the increased sampling frequency).
- IF Monthly effluent results continue to be greater than surface water standards listed in the RFCA, Attachment 5, Table 1 for 3 consecutive months—
- **THEN** Notify the RFCA parties and sample the East Landfill Pond for the constituents that were greater than the surface water standards during monthly sampling—
- **ELSE** Discontinue monthly sampling for the constituents that were less than the surface water standards.
- **IF** East Landfill Pond sampling results are greater than surface water standards listed in the RFCA, Attachment 5, Table 1—
- **THEN** Consult the RFCA parties to determine if further sampling is required, or if another water management strategy should be applied (Additional action)—
- **ELSE** Continue routine quarterly sampling for the constituents that were sampled in the East Landfill Pond.

3.4.1.1 Data Evaluation

Table 3–20 summarizes the PLF routine quarterly sample collection for the 3rd quarter of CY 2006. During the July 25, 2006, sample at the PLFSEEPINF, the flow rate was 0.48 gallons per minute. As of September 30, 2006, the East Landfill Pond remained in a flow-through configuration.

Refer to the analytical data accompanying this document.

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January 2007

¹⁸ Nitrate/nitrite results are conservatively compared to the nitrate standard only.

Table 3-20. 3rd Quarter of CY 2006 Routine Grab Sampling at the Present Landfill

Location Code	Collection Date/Time	Analytes
GWISINFNORTH	7/25/06 11:00	VOCs, isotopic uranium, total and dissolved metals, nitrate/nitrite, total mercury
GWISINFSOUTH	DRY	NA
PLFSEEPINF	7/25/06 10:30	VOCs, isotopic uranium, total and dissolved metals, total mercury
PLFSYSEFF	7/25/06 10:15	VOCs, isotopic uranium, total and dissolved metals, SVOCs, total mercury

NA = not applicable

Analytical results for the treatment system effluent (PLFSYSEFF) are compared to the appropriate surface water standards listed in RFCA Attachment 5, Table 1. Table 3–21 summarizes the Table 3–20 results that were greater than the applicable surface water standard, triggering monthly sampling. All other analytical results were less than the applicable surface water standard.

Table 3–21. Present Landfill Treatment System Effluent (PLFSYSEFF): Summary of Routine 3rd Quarter of CY 2006 Grab Sampling Analytical Results Exceeding RFCA Surface Water Standards (July 25, 2006 Sample)

Analyte	Result	Units	RFCA Standard	Basis for Standard ^a
Arsenic, total	22.4	μg/L	0.018	W+F
Boron, total	1,230	μg/L	750	AG, SS
Cadmium, dissolved	2	μg/L	1.5	TVS⁵
Manganese, total	6,120	μg/L	1,858	
Silver, dissolved	1.7	μg/L	0.6	TVS⁵
Thallium, total	23.8	μg/L	0.5	W+F, WS

Note: Monthly sampling for the analytes in **bold** was triggered by previous sample results.

For Cd, Ag, and Tl (Table 3–21), monthly sampling has been initiated at the PLFSYSEFF per the decision rule (Table 3–22). Monthly sampling for As, B, and Mn was not implemented based on consultation with the regulators.

^aBasis acronyms: AG = Agriculture; SS = Site Specific Standard; TVS = Table Value Standard; WS = Water Supply; W+F = Water plus Fish

^bTable value standards are based on a toxicity equation which uses a hardness value of 143 mg/L.

Table 3–22. Present Landfill Treatment System Effluent (PLFSYSEFF): Summary of Monthly Analytical Results

Analyte	Sample Date	Result	Units	RFCA Standard
	7/25/06	2.0	μg/L	1.5
	8/28/06	0.19	μg/L	1.5
Cadmium, dissolved	9/26/06	Undetect	μg/L	1.5
	10/19/06	Undetect	μg/L	1.5
	Status:	Discontinue monthly sa	ampling for Cd	
	7/25/06	1.7	μg/L	0.6
	8/28/06	Undetect	μg/L	0.6
Silver, dissolved	9/26/06	Undetect	μg/L	0.6
	10/19/06	Undetect	μg/L	0.6
	Status:	Discontinue monthly sa	ampling for Ag	
	7/25/06	23.8	μg/L	0.5
	8/28/06	Undetect	μg/L	0.5
Thallium, total	9/26/06	Undetect	μg/L	0.5
	10/19/06	Undetect	μg/L	0.5
	Status:	Discontinue monthly sampling for TI		

Note: The initial result triggering monthly sampling is shown in **bold**. The routine quarterly samples are shown in italics.

3.4.2 Original Landfill

This surface water-monitoring objective is intended to determine the short- and long-term effectiveness of the OLF remedy as related to surface water. These requirements were initially identified in the *Final Interim Measure/Interim Remedial Action for the Original Landfill*, Appendix B: "Post-Accelerated Action Monitoring and Long-Term Surveillance and Monitoring Considerations" (DOE 2005b), and finalized in the *Final Landfill Monitoring and Maintenance Plan, Rocky Flats Environmental Technology Site, Original Landfill* (DOE 2006b), including institutional controls, inspection and maintenance, and environmental monitoring

Details regarding surface water monitoring for the OLF can be found in the Final Landfill Monitoring and Maintenance Plan, RFETS OLF (DOE 2006b). As part of OLF closure, surface water will be monitored at both upgradient and downgradient locations in Woman Creek (locations GS05 and GS59, respectively). Applicable surface water standards are listed in the RFCA, Attachment 5, Table 1.

As detailed in the IMP, monitoring requirements will consist of quarterly monitoring until the first CERCLA review. A validated exceedance of an effluent limit will trigger monthly monitoring for 3 consecutive months. Continued exceedances during the 3-month period will trigger consultation between the RFCA parties to determine whether a change in the remedy is required, additional parameters need to be analyzed, or a different sampling frequency is required.

OLF sampling locations, data collection protocols, and analyte suites are given in Table 3–23.

Table 3-23. Sampling Locations for Original Landfill

Location Code	Location Description	Routine Data Collection	Analytes			
GS05; upgradient	Woman Creek at west fenceline	Quarterly grab samples	VOCs, isotopic uranium, total and dissolved metals, total mercury			
GS59; downgradient	Woman Creek 800 feet downstream of OLF	Quarterly grab samples	VOCs, isotopic uranium, total and dissolved metals, total mercury			

Notes: Flow is measured at 15-minute intervals as part of the Investigative monitoring objective (Section 3.5); isotopic uranium, dissolved metals, and total metals are currently collected as continuous flow-paced composites using automated samplers, also as part of Investigative monitoring. If Investigative monitoring at these locations is discontinued at a later date, performance monitoring would continue using grab samples.

Analytical methodologies and RLs, data reporting procedures, laboratory QA/QC procedures, and laboratory data validation and contractor validation procedures are conducted in accordance with EPA-approved methods. Samples are submitted to an EPA-approved analytical laboratory for the following analysis methods.

- SW-846 Method 8260B—Volatile Organic Compounds (VOCs)
- SW-846 Method 6010B—Metals (Total and Dissolved)
- SW-846 Method 7470A—Mercury (Total)
- Alpha Spectrometry—Isotopic Uranium

This objective is intended to evaluate water quality in Woman Creek by monitoring both upstream and downstream of the OLF. Monitoring is intended to demonstrate compliance with surface water standards.

Generally, analytical data evaluation is performed quarterly as data become available. The surface water DQO decision rule for the OLF is as follows:

- **IF** Quarterly mean concentrations at downstream location GS59 are greater than surface water standards listed in the RFCA, Attachment 5, Table 1,
- **AND** Quarterly mean concentrations at downstream location GS59 are greater than quarterly mean concentrations at upstream location GS05—
- **THEN** Sampling frequency will be increased to monthly for 3 consecutive months for the constituents that were greater than the surface water standards during quarterly sampling.

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- **IF** Quarterly mean concentrations for monthly sampling at downstream location GS59 are greater than surface water standards listed in the RFCA, Attachment 5, Table 1,
- AND Quarterly mean concentrations for monthly sampling at downstream location GS59 are greater than quarterly mean concentrations for monthly sampling at upstream location GS05—
- **THEN** Consult the RFCA parties to determine whether a change in the remedy is required, additional parameters need to be analyzed, or a different sampling frequency is required—
- **ELSE** Discontinue monthly sampling.

3.4.2.1 Data Evaluation

Table 3–24 summarizes the OLF sample collection for the 3rd quarter of CY 2006.

Refer to the analytical data accompanying this document.

Table 3-24. 3rd Quarter of CY 2006 Routine Sampling for the Original Landfill

Location Code	Collection Date/Time(s)	Analytes
GS05	5/8/06 10:22 - 11/1/06 14:25	isotopic uranium, total and dissolved metals
GS05	7/10/06 10:00	VOCs, total mercury
GS59	5/8/06 10:49 - 11/1/06 11:35	isotopic uranium, total and dissolved metals
GS59	7/10/06 9:30	VOCs, total mercury

Note: grab samples show a unique date/time; continuous flow-paced composites show the start and end date/times Results for samples listed in **bold** were not available for the last quarterly report; they are included here for completeness.

Analytical results for GS59 and GS05 are compared, per the decision rule (see above), to the appropriate surface water standards listed in RFCA Attachment 5, Table 1. For the 3rd quarter of CY 2006 samples, all analytical results were acceptable.

3.5 Investigative Monitoring

When reportable water-quality measurements are detected by surface water monitoring at POEs or POCs, additional monitoring may be required to identify¹⁹ the source and evaluate for mitigating action pursuant to RFCA through the consultative process. This Investigative Monitoring objective is intended to provide upstream water-quality information should reportable water-quality values be detected at RFCA POEs or POCs. Data collection is limited to POE and POC AoIs and is intended to be discontinued once acceptable water quality has been demonstrated at POEs and POCs for an extended period.

During the 3rd quarter of CY 2006, five investigative locations were operational (Table 3–25). Data collection upstream of POEs and POCs is not limited to the investigative locations. The Site may also elect to collect data using other methods, subject to the characteristics of the reportable water-quality values and through the consultative process.

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¹⁹ Note that the term "identify" is used here to mean "locate." Characterization is also implied.

No routine data evaluation for the Investigative objective is presented in this quarterly report. Refer to the analytical data accompanying this document for additional information.

Table 3–25. Investigative Surface Water Monitoring Locations

Location Code	Location Description	Sample Collection	Field Data Collection	Primary Flow Measurement Device	Telemetry
GS05	Woman Creek at western Site boundary	Flow-paced composites; isotopic U	Continuous flow data at 15-minute intervals	9-inch Parshall flume	Yes
GS13	North Walnut Creek just upstream of A-Series Bypass	Flow-paced composites; isotopic U	Continuous flow data at 15-minute intervals	data at 15-minute 6-inch Parshall flume	
GS51	Drainage area south of former 903 Pad/Lip tributary to the SID	Flow-paced composites; Pu, Am, TSS	Continuous flow data at 15-minute intervals	0.75-foot H-flume	Yes
GS59	Woman Creek 800 feet east of OLF	Flow-paced composites; isotopic U	Continuous flow data at 15-minute intervals	1.5-foot Parshall flume	Yes
SW018	North Walnut Creek tributary west of former Building 771 area	Flow-paced composites; Pu, Am, TSS	Continuous flow data at 15-minute intervals	1-foot H-flume	Yes

4.0 Ground Water Monitoring

This section presents a summary discussion of ground water monitoring results from the 3rd quarter of CY 2006 (July 1–September 30). Corresponding analytical data are presented in Appendix A.

Section 4.1 includes a summary of IMP well classifications and corresponding monitoring requirements. Section 4.2 presents a discussion of monitoring performed in compliance with the IMP, a summary of how the resulting data are to be evaluated, and the outcome of those data evaluations. Section 4.3 presents a summary of ground water monitoring performed outside of the IMP. Section 4.4 provides information on activities at the ground water treatment systems. Section 4.5 summarizes non-routine events. References are included in Section 7.0, and analytical data are in Appendix A.

4.1 IMP Well Classifications

The 2006 IMP (DOE 2006e, 2006f) defines the monitoring well classifications and sets forth the monitoring requirements for each classification; this document is slightly modified from the revised FY 2005 IMP (K-H 2005a, 2005b). These classifications are summarized in Table 4–1.

Table 4–1. IMP	Classifications and	Corresponding	Monitoring	Requirements
				- 7

Well Classification	General Objective	Monitoring Frequency					
AOC	Monitor ground water quality and water levels in a drainage	Semiannual (2x/year)					
	downgradient of a contaminant plume or group of plumes						
Boundary	Monitor ground water quality and water levels in Woman Creek and Walnut Creek drainages at eastern (downgradient) Site boundary	Annual (1x/year)					
Sentinel	Monitor ground water quality and water levels near contaminant plume edges and in drainages	Semiannual (2x/year)					
Evaluation	Monitor ground water quality and water levels in or near contaminant source areas and in the former IA	Biennial (1x/every 2 years)					
RCRA	Monitor ground water quality and water levels upgradient and downgradient of the PLF and OLF	Quarterly (4x/year)					
Decision Doc	Monitor ground water quality and/or water levels in accordance with published decision documents	Varies					
Water Level	Monitor ground water levels (not water quality) in areas lacking coverage or of special interest	Semiannual (2x/year)					
Treatment	Monitor quality of ground water treatment system influent,	Semiannual					
System*	effluent, and downgradient surface water	(2x/year)					
Surface Water	Monitor quality of surface water downgradient of contaminant	Semiannual					
Support*	plume(s)	(2x/year)					

Notes:

AOC = Area of Concern

RCRA = Resource Conservation and Recovery Act

Per the IMP (DOE 2006e, 2006f), locations that are routinely sampled during the first and third quarter of a calendar year include those with RCRA and Decision Document classifications.

^{*} Treatment System and Surface Water Support locations are not monitoring wells but are included for completeness.

4.2 IMP Monitoring

As stated above, wells scheduled for sampling in the 3rd quarter of CY 2006 included RCRA and Decision Doc wells. Table 4–2 summarizes this sampling information.

Table 4–2. IMP Samples Requested During the 3rd Quarter of CY 2006 (Excluding QA/QC Samples)

Location	VOCs	SVOCs	Metals
	RCRA Wells		
P	resent Landfill		
70193	X		Х
70393	X		Χ
70693	Х		Χ
73005	X		Х
73105	X		Х
73205	Х		Χ
C	riginal Landfill		
P416589	X	X	Χ
80005	Х	X	Χ
80105	X	Х	Х
80205	X	X	Х
Decision	on Document We	ells	
	OU1 Plume		
891WEL	X		
0487	X		

VOCs = volatile organic compounds

SVOCs = semivolatile organic compounds

X = sample requested

(Blank) = sample not requested

Figure 4–1 displays a map of the ground water monitoring locations sampled in the 3rd quarter of CY 2006, most of which support IMP requirements. Of the 26 individual "real" samples requested (i.e., not including QA/QC samples), 24 were successfully collected (92 percent).

4.2.1 Summary of Results for IMP Monitoring

Analytical data representing samples collected in the 3rd quarter of CY 2006 are presented in Appendix A.

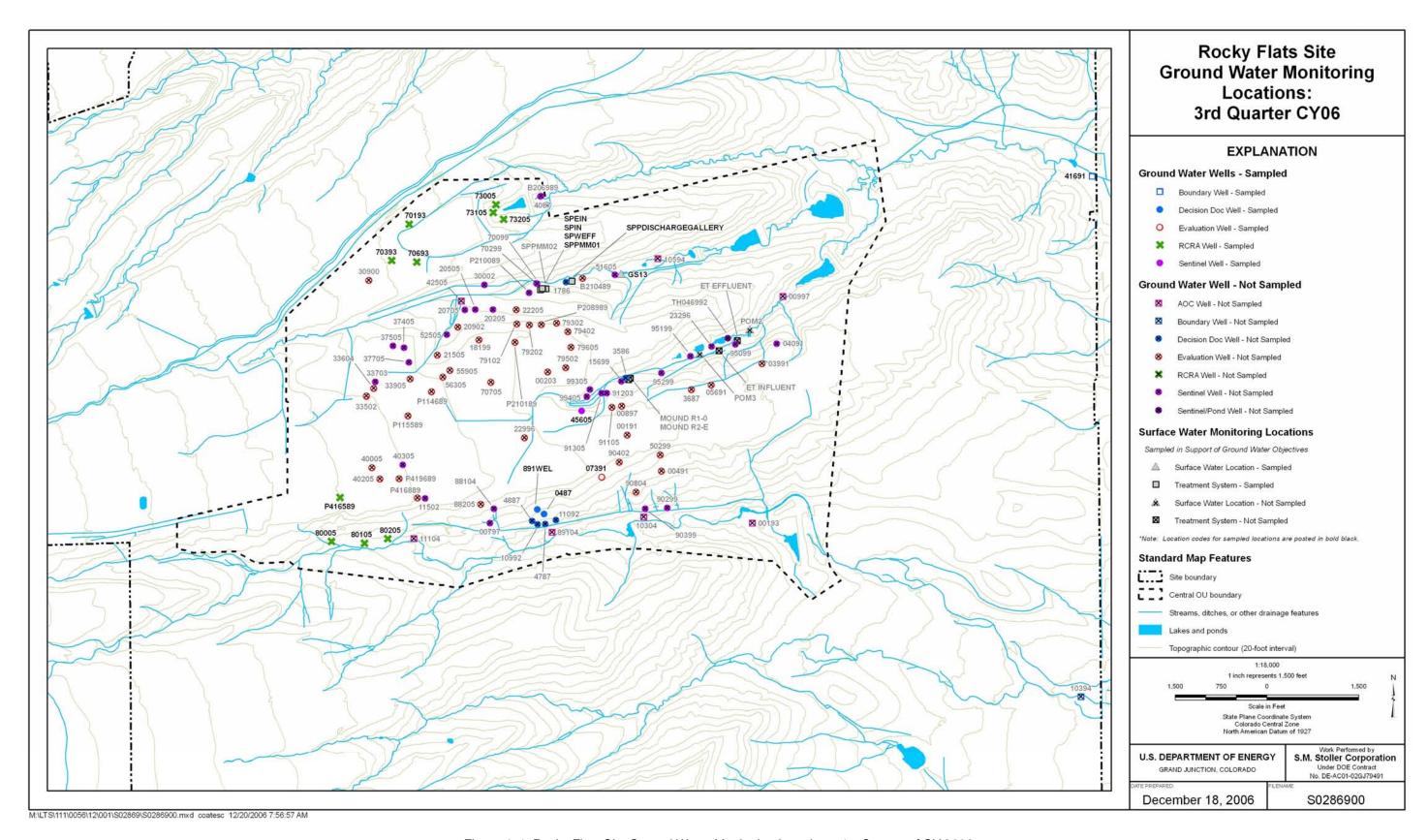


Figure 4–1. Rocky Flats Site Ground Water Monitoring Locations: 1st Quarter of CY 2006

4.2.1.1 RCRA Wells

Ground water data collected from RCRA wells are evaluated annually via comparison of upgradient vs. downgradient concentrations. This comparison will be included as a part of the Annual Report for 2006.

One downgradient well at the PLF, 73005, was dry. All other wells provided the required samples.

At the OLF, water quality data from the three downgradient wells are also compared against surface water standards in the manner described in the IMP (DOE 2006e) for Sentinel wells. This comparison employs the 85th percentile of the data for each given analyte of interest, and a calculation of the concentration trend with decisions based on a 95 percent level of confidence. Eight sets of quarterly data (i.e., 2 years of data, assuming the wells all produce the needed samples) will be necessary before sufficient data are available to perform these comparisons.

4.2.1.2 Decision Document Wells

None of the ground water data collected from Decision Doc wells in the 3rd quarter of CY 2006 trigger decisions. Both Decision Doc wells support the OU1 Plume Corrective Action Decision/Record of Decision (DOE 2001). According to this document, decisions are triggered when all VOCs are below RFCA Tier II Action Levels in wells 0487 and 891COLWEL (now 891WEL) for 4 consecutive quarters, or when trichloroethene concentrations are above RFCA Tier I Action Levels in well 891COLWEL (891WEL) for 4 consecutive quarters. Neither of these conditions were met in the 3rd quarter of CY 2006.

4.3 Non-IMP Monitoring

Non-IMP ground water monitoring was performed at three wells and at several treatment system locations.

- Evaluation well 07391, located near the Ryan's Pit source area, was sampled during the 2nd quarter of CY 2006. However, a ground water sample for the analysis of total uranium was inadvertently omitted. This sample was collected in the 3rd quarter of CY 2006.
- Sentinel well 45605, installed within the slump block south of former B991, was sampled during the 3rd quarter of CY 2006. This effort was made because this well is not anticipated to provide ground water samples for much longer, due to ongoing damage caused by the slump.
- Boundary well 41691, located adjacent to Walnut Creek at Indiana Street, was sampled for nitrate during the 3rd quarter of CY 2006 to compare with anomalous nitrate results from a sample collected in the 2nd quarter of CY 2006. This well has typically produced samples of ground water with concentrations of nitrate below 1 milligram per liter (mg/L), yet the sample collected in the 2nd quarter of CY 2006 was reported at 470 mg/L. The sample collected in the 3rd quarter of CY 2006 was reported to contain a nitrate concentration of 0.024 mg/L, refuting the anomalous results of the 2nd quarter of CY 2006.
- Numerous samples for the analysis of nitrate and uranium were collected at locations associated with the SPPTS in the 3rd quarter of CY 2006 to evaluate the effects of system repairs on water quality. Locations that were sampled included the true influent (SPIN),

effluent (SPPMM01), discharge gallery (SPP Discharge Gallery), and two locations within the cells (SPWEF, the effluent from the west cell, and SPEIN, the influent to the east cell). Sampling of the first three locations listed was performed twice weekly beginning September 11, 2006, and continued into the 4th quarter of CY 2006. Results confirmed the repairs performed on the SPPTS achieved the desired outcome, and effluent concentrations returned to acceptable concentrations of nitrate and uranium.

See Appendix A for analytical data from these non-IMP sampling events.

4.4 Ground Water Treatment Systems: Maintenance and Special Sampling

The most significant events to take place at the treatment systems during the 3rd quarter of CY 2006 were the media replacement at the MSPTS and plumbing repairs at the SPPTS. Both of these items were briefly discussed in the 2nd quarter of CY 2006 report (DOE 2006h). As noted in that document, the MSPTS work was planned in the 2nd quarter of CY 2006 and conducted in the 3rd quarter of CY 2006, and the SPPTS activities were also performed in the 3rd quarter of CY 2006.

4.4.1 MSPTS

Media replacement at the MSPTS was successfully completed in August 2006. This represented the first time since the installation of the MSPTS in 1998 that the treatment media in this system was replaced. For convenience, because of the availability of heavy equipment, an instrumentation vault similar to that installed at the ETPTS in the 1st quarter of CY 2006 (DOE 2006g) was installed at this time. These instruments measure water level within the collection trench and both cells, water pressure to the first (western) cell, and volume treated. These data are automatically loaded to a secure website for review by project personnel, and assist the efficient and effective operation and maintenance of the system.

Before and after media replacement, routine maintenance activities were performed at the MSPTS. These activities included weekly raking of the media and inspection of influent and effluent flow conditions.

4.4.2 ETPTS

Routine maintenance activities continued at the ETPTS through the 3rd quarter of CY 2006. This included weekly raking of the media (which was replaced in September 2005) and inspection of influent and effluent flow conditions.

4.4.3 SPPTS

Activities at the SPPTS were more involved, and began with excavation of the overburden within the treatment cells (wood chips and a soil cover) to expose the treatment media and the distribution pipes feeding water to the cells. The intent was to allow detailed inspection of the plumbing and performance of a valve test, and inspection and sampling of the media and pore water to confirm the media is still hydraulically acceptable and capable of treating nitrate.

Upon exposing the plumbing components within the western cell, problems were immediately apparent. The distribution gallery in this cell—a group of five perforated pipes feeding off a

main lateral—had physically separated from the influent line penetrating the wall of the system (Figure 4–2). Additional plumbing problems were identified, and when a valve test was performed it was found that the valves were also malfunctioning.



Main influent port (small black oval on inner wall of west cell) has been accentuated for easier visibility, and the left-most (fifth) pipeline of the distribution gallery is not visible in this photograph because it remains buried. Items within red oval were originally connected, but the connection had broken; some white and gray fragments of the pipe that had formed this connection are visible between the red oval and the date stamp on the photograph. Items that were originally connected, and are enclosed in the red oval, include the main influent port, distribution gallery (the left end of the gallery), and the west cell influent vent riser (gray pipe in upper part of oval).

Figure 4-2. Influent Distribution Gallery, West Cell of SPPTS

Samples of the treatment media and pore water were collected and evaluated for available carbon and bacterial and nitrate content. Results indicated the media is still able to support bacteria to treat nitrate. The media hydraulics also appeared to be satisfactory. Therefore, it was concluded the plumbing problems were the reason for the insufficient nitrate removal. The following plumbing repairs were made:

- The original influent line from the trench to the cells, which became obsolete when the collection well and pump were installed in 2002, was truncated. (Its continuing presence resulted in a feedback loop, with a portion of the pumped water flowing into the treatment system and the balance cycling back into the intercept trench.)
- The main influent line "Y" that routes water into either the west or east cell was replaced.
- The influent line from the pump-equipped collection sump (the sampling location recently named SPIN) to the treatment cell influent lines was stabilized.
- All valves were replaced.
- The entire distribution gallery, including the main manifold and five lateral pipelines, was replaced.

- The distribution gallery was reconnected to the influent port and west cell influent vent riser.
- The annuli around several of the penetrations through the cell walls were filled to address potential leakage from the system.
- The west cell effluent vent riser was reconnected to the west cell effluent line.
- All vent risers were secured and stabilized.

These activities were summarized in a presentation to the Rocky Flats Stewardship Council on September 11, 2006.

Following completion of repairs, several SPPTS locations were sampled on a biweekly (twice each week) schedule. Locations that were consistently included were SPIN (the true influent, collected from the collection well from which influent is pumped to the system), SPPMM01 (system effluent), and SPP Discharge Gallery. At the end of the quarter, samples were also collected from two locations within the system: SPWEF, the effluent from the west cell, and SPEIN, the influent to the east cell. Analytical data are included in Appendix A; results from SPPMM01 show the system repairs to have resolved the problem of inadequate nitrate treatment.

In addition to the post-repair samples described above, field-screening sampling described in the 2nd quarter of CY 2006 report (DOE 2006h) continued into this quarter. Associated results are included in below as additions to the table originally presented in that 2nd quarter report.

In addition to the repairs described above, more work was performed in September to restore the direction of flow from the SPP Discharge Gallery to that originally designed.

On September 27, nitrate treatability studies were begun at the SPPTS. These studies are being performed by researchers from Colorado State University, and are designed to test and compare nitrate removal from SPPTS influent water using two different substrates (pea gravel and plastic beads), each inoculated with appropriate bacteria, and using ethanol as a carbon source. (The current system uses sawdust with 15 percent zero-valent iron as the combined substrate and carbon source in treating nitrate.) The objective is to evaluate the potential for a system having a smaller footprint, and which would be more easily maintained—particularly with respect to media replacement. Future reports will provide updated information on these studies.

Before and after the system evaluation and repairs described above, routine maintenance activities were performed at the SPPTS. This included weekly inspection of the solar/battery system that powers the pump, operation of the pump, and influent and effluent flow conditions.

4.5 Other Ground Water-Related Issues

Several other events or conditions related to ground water apply to the 3rd quarter of CY 2006, and are discussed below.

Quarterly Report of Site Surveillance and Maintenance Activities—3rd Quarter CY 2006 Doc. No. S0286800

Table 4–3. Results from Analyses of Field Screening Samples Collected at the SPPTS Through the 3rd Quarter of CY 2006

Sample Location	Date	pH (field measurement)	U (μg/L), ESL	Alkalinity (mg/L as CaCO₃)	Nitrate as N (mg/L, field measurement)	Nitrate as N (mg/L, ESL)	Nitrite as N (mg/L, ESL)	Ammonia as N (mg/L)	Iron (mg/L, field measurement)	Iron (mg/L, ESL)	TOC (mg/L)	N-Bart (cfu/mL)
SPPMM02	1/19/2006		29.02									
SPPMM02	1/23/2006					272		<1				
SPPMM02	2/8/2006		31.5			270						
SPPMM02	2/28/2006		26.2			264						
SPPMM02	3/28/2006		39.3	320		274					17.2	
SPPMM02	3/30/2006	6.86	27.3	370	286	257			1.02		5.3	
SPPMM02	4/6/2006		23.6			265						
SPPMM02	4/12/2006		23.3			268						
SPPMM02	4/17/2006		24.6			265						
SPPMM02	5/1/2006		27.2			219						
SPPMM02	5/8/2006		36.3			139						
SPPMM02	5/17/2006		25.4			243						
SPPMM02	5/22/2006		27.3			247						
SPPMM02	5/29/2006		24.1			270						
SPPMM02	6/12/2006		26.4			259						
SPPMM02	6/19/2006		23.9			258						
SPPMM02	6/26/2006		23.9			258						
SPPMM01	1/19/2006		0.92									
SPPMM01	1/23/2006					460		19				
SPPMM01	2/8/2006		15.8			435						
SPPMM01	2/28/2006		37.3			331						
SPPMM01	3/28/2006		19.9	150		328					4.6	-
SPPMM01	3/30/2006	7.59	2.63	60	324	304			0.12		3.8	
SPPMM01	4/6/2006	7.00	2.76	00	JZT	266			0.12		0.0	-
SPPMM01	4/12/2006		0.22			280						
SPPMM01	4/17/2006		0.1			224						
SPPMM01	5/1/2006		2.6			341						
SPPMM01	5/8/2006		2.5			296						
SPPMM01	5/17/2006		0.2			263						
SPPMM01	5/22/2006		0.6			271						
SPPMM01	5/29/2006		4.8			244					1	
SPPMM01	6/12/2006		5.2 5.6			293						
SPPMM01	6/19/2006					275						
SPPMM01	6/26/2006	6.57	4.6	400		252	4.40	25		0.04	7.0	
SPPMM01	7/11/2006	6.57	1.4	130		209	1.48	25		0.01	7.6	
SPPMM01	7/17/2006		4.8			159	0.96	20		3.27	9.8	
SPPMM01	7/25/2006		1.9			126	1.47	30		0.11	12.7	
SPP discharge gallery	1/19/2006	0.50	40.4	0.40		673	0.474	4		0.04	0.4	
SPP discharge gallery	7/11/2006	6.56	46.7	240		581	0.474	3		0.01	8.1	
SPP discharge gallery	7/17/2006		55.6			556	0.735	1		0.1	11.5	
SPP discharge gallery	7/25/2006		48.9			533	0.305	3		0.11	7	
SPIN	3/30/2006	6.65	29.1	400	300	290			0		6.1	1000
SPIN	4/6/2006		26.4			299					1	
SPIN	4/12/2006		25.2			242					1	
SPIN	4/17/2006		23.3			270						
SPIN	5/1/2006		36.2			319						

Table 4–3 (continued). Results from Analyses of Field Screening Samples Collected at the SPPTS Through the 3rd Quarter of CY 2006

Sample Location	Date	pH (field measurement)	U (μg/L), ESL	Alkalinity (mg/L as CaCO₃)	Nitrate as N (mg/L, field measurement)	Nitrate as N (mg/L, ESL)	Nitrite as N (mg/L, ESL)	Ammonia as N (mg/L)	Iron (mg/L, field measurement)	Iron (mg/L, ESL)	TOC (mg/L)	N-Bart (cfu/mL)
SPIN	5/8/2006		40.4			321						
SPIN	5/17/2006		36.5			308						
SPIN	5/22/2006		39.4			380						
SPIN	5/29/2006		35.5			302						
SPIN	6/12/2006		33.6			291						
SPIN	6/19/2006		35.1			315						
SPIN	6/26/2006		34.6			324						
SPIN	7/11/2006	6.69	41.5	290		329	0.02	1		0.24	8.6	
SPIN	7/17/2006		43			338	0.011	1		1.54	14.9	
SPIN	7/25/2006		37.1			304	0.01	1		0.32	16	
West Cell influent	3/30/2006	6.57	29.3	400	246	244			0.08		12.2	1000
West Cell effluent	3/30/2006	6.56	36	510	274	272			0.63		10.8	10000
West Cell effluent	7/11/2006	6.44	36	470		286	0.067	1		9.55	12.3	
West Cell effluent	7/17/2006		11.7			14	0.022	1		4.8	21	
West Cell effluent	7/25/2006		8.1			0.25	0.005	1		33.9	22	
East Cell influent	3/30/2006	6.84	42.9	320	325	343			0		11.2	
East Cell influent	7/11/2006	6.49	28.9	220		245	2.49	7		0.92	11.1	
East Cell influent	7/17/2006		24			149	0.012	1		0.81	22	
East Cell influent	7/25/2006		21.7			146	0.005	1		15.2	6.4	
East Cell effluent	3/30/2006	8.45	2.99	40	323	321			0.1		4	10000
GS13	5/1/2006		19.7			76						
GS13	5/8/2006		21.3			74						
GS13	5/17/2006		19.8			66						
GS13	5/22/2006		22.4			63						
GS13	5/29/2006		26.4			55						
GS13	6/12/2006		32.6			58						

ESL = Environmental Sciences Laboratory in Grand Junction, Colorado, operated for DOE-LM

CaCO₃ = calcium carbonate

N-Bart is "biological activity reaction test", a measure of nitrifying bacteria, reported in colony forming units per milliliter.

4.5.1 Seep Near Former Building 991

During the 3rd quarter of CY 2006 a seep was identified southeast of former B991. This seep is located in a small depression long marked by lush grasses and isolated willows. After one of the fractures associated with the slump south of B991 intercepted this area of lush growth, the fracture was observed to contain water. Small amounts of flow (estimated at less than 1 gallon per minute) have been observed. Because of the basin-like topography, this water typically saturates the immediate area rather than flowing down to the nearby wetland.

This seepage appears to represent a surface expression of the ground water that had long been just below surface here (as indicated by the lush vegetation), rather than a "new" source of ground water in the area.

4.5.2 Slump South of Former Building 991

The slump south of former B991 continues to be active. From a distance its general appearance has not changed markedly, but vertical offset continues to increase along various fractures. At the stake originally marking the western extent of the main fracture, vertical offset increased from 4 feet late in the second quarter (June 13) to 5 feet at the end of the third quarter (September 27). Over the same period, vertical offset at another point along this fracture increased from about 9 feet to 12 feet.

Horizontal offset is also increasing. The slump began with one or two closely-spaced fractures, and has developed into a dense network of roughly concentric, arc-shaped fractures. Each of these fractures has a horizontal offset of a fraction of an inch to several inches, so the cumulative offset has increased significantly.

Small, auxiliary fractures on the face of the original excavation to remove the SW056 drain have not shown appreciable movement recently, and in most cases appear to be healing. In contrast, a new fracture has appeared that is sub-parallel to the western portion of the main fracture and runs along the face of the hillside from east to west. Changes here are only evaluated qualitatively, but show increasing vertical and horizontal displacement.

End of current text

5.0 Air Monitoring

5.1 Ambient Air Monitoring

5.1.1 Perimeter Sampler Locations

Figure 5–1 illustrates the current perimeter Radioactive Ambient Air Monitoring Program sampler locations. Many other locations existed during the 12 months prior to the completion of demolition activities at the Site in October 2005. Once the demolition and soil disturbance activities had been completed, the complete network was no longer needed for Rad-National Emissions Standards for Hazardous Air Pollutants (NESHAP) compliance demonstration purposes. DOE has continued monitoring at locations S-132, S-136 and S-138 to monitor possible changes in downwind air quality as the soil weathers; all other locations were removed from service. S-136 and S-138 sample the air quality predominantly downwind of the Site; S-132 captures mainly ambient non-Site emissions on the predominantly upwind side of the Site.

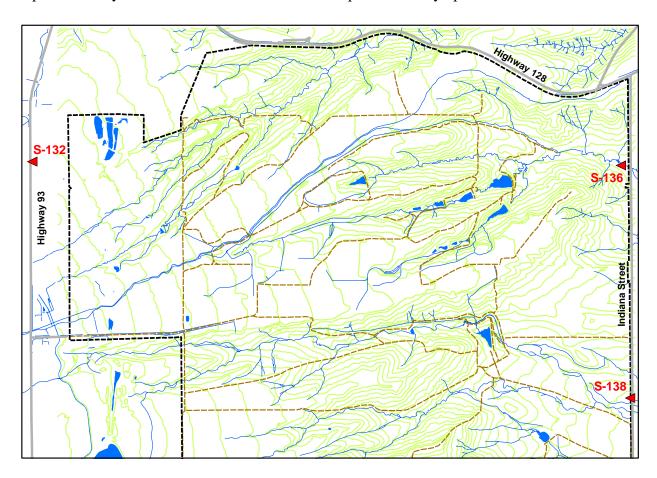


Figure 5-1. Location of Perimeter Air Samplers

Figure 5–2 illustrates the annualized potential dose for the period October 2005 through September 2006 for the three remaining perimeter samplers. Dose values are expressed as a percentage of EPA's air concentration-based dose limit for members of the public. The percentage values are based on the measured air concentrations, extrapolated for a 12-month

period at the measured average concentrations and converted to a percent of the Rad-NESHAP concentration limits, equivalent to a 10 millirem effective dose equivalent (EDE). Dose is calculated in EDE units.

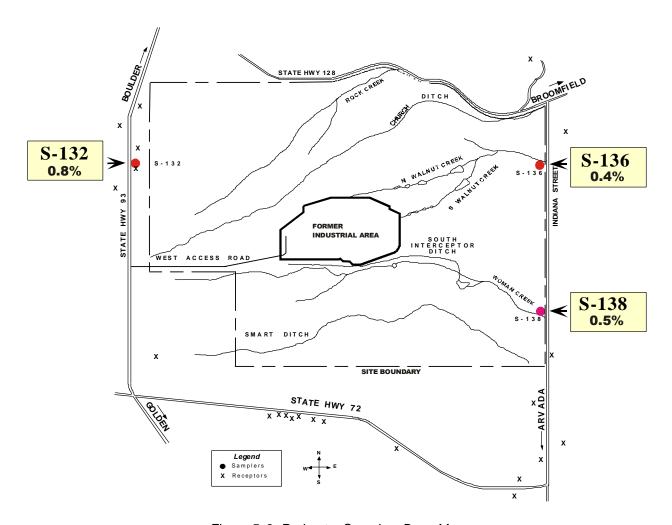


Figure 5-2. Perimeter Samplers Dose Map

The dose percentages include naturally occurring uranium isotopes as well as Pu-239 and Am-241. These results are generally consistent with data from previous years, but seem to suggest somewhat reduced overall concentrations compared to the air concentrations measured during periods of closure activities.

5.1.2 Perimeter Sampler Locations Dose-Rate Summaries

Figure 5–3 illustrates the estimated potential dose rates from the three perimeter sampler locations for each month during the period from October 2005 through September 2006. These results include contributions from naturally occurring uranium isotopes. In the samples collected since October 2005, only U-234 and U-238 are observed frequently above detection limits, Pu and Am are rarely detected. The results shown here report the concentrations derived from the laboratory data, whether the data were above or below actual detection limits. Location S-132 most frequently yields the highest dose estimates. This consistency is not surprising considering

the typical contribution from natural uranium isotopes at this location. The dose rates due to Pu and Am alone, though not well quantified, suggest themselves to be minor contributors to the overall dose rate when uranium is included.

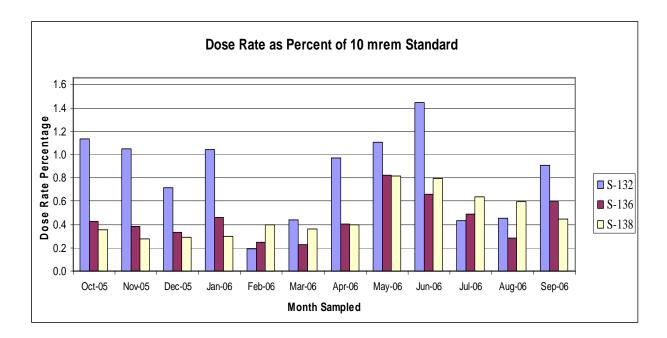


Figure 5–3. Dose Rate Summary

During the present quarter, specifically in September 2006, in addition to the usual uranium detections in most of the samples, Am-241 was detected at two locations (S-132 and S-136) and Pu-239 was detected at one (S-132). In all three samples these transuranic measurements are only slightly above the detection limit and are qualified as estimated values (J qualifier). The total estimated annualized dose in each month of the quarter remained less than 1 percent of the EPA limit for emissions from a DOE facility.

5.2 Meteorology and Climatology

Wind roses are no longer presented as part of the data summary. The Site maintains access to meteorological data collected at the nearby National Renewable Energy Laboratory National Wind Technology Center.

End of current text

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6.0 Ecological Monitoring

During the 3rd quarter of 2006, the Ecology Program was primarily involved in conducting several field activities to collect data required for various regulatory reports and for natural resource management issues.

Ecology personnel continued to provide guidance and consultation for endangered species and wetland issues for the access road upgrades project that began in the 2nd quarter of 2006 and was completed during the 3rd quarter of CY 2006. Additional consultations with respect to wetlands and endangered species issues were made for some modifications to the Solar Ponds Discharge Gallery and in preparation for the DOE retained land perimeter fence project. The ecology section for the 2nd quarter Site Surveillance and Maintenance Activities Report was written and completed.

6.1 Data Management

Data management was begun on some of the data collected during the 2nd quarter of the 2006 field season. Selected datasets were entered into electronic databases and quality checked to get the data ready for analysis later this winter. The ecological data collected during 2006 will be summarized and presented in the 2006 Rocky Flats Site Annual Report of Site Surveillance and Maintenance Activities (DOE 2006d).

6.2 Regulatory Monitoring

6.2.1 Preble's Mouse Mitigation Monitoring

Mitigation monitoring was conducted at several locations in the 3rd quarter of CY 2006 where disturbances occurred to the Preble's mouse habitat during Site closure activities. The monitoring is required under the Biological Assessments (BA)/Biological Opinions (BO) that the Site has with the U.S. Fish and Wildlife Service (USFWS) for the various projects that were done. Each BA/BO has its own specific requirements for monitoring. In general, the mitigation monitoring evaluates the revegetation success at the different locations. Both qualitative and quantitative monitoring methods are used at the locations depending on the requirements of the BA/BO. Success criteria are outlined in each specific BA/BO. In 2006, monitoring was conducted for the Water Measurement Flume Replacement Project, East Shooting Range Project, Incinerator Project, Phytoremediation Project, and Programmatic Biological Assessment (PBA) Part II Projects. The data for each of these projects will be summarized and presented in reports due to the USFWS on December 1, 2006.

6.2.2 Wetland Monitoring/Management

During the 3rd quarter of CY 2006, wetland mitigation monitoring was conducted at several mitigation wetlands per the requirements of the Rocky Flats Wetland Mitigation Monitoring and Management Plan. Wetland monitoring included both qualitative and quantitative surveys to evaluate the successful establishment of the wetland species, identify potential noxious weed problems, estimate the current size of the wetlands, and identify general management issues at the mitigation wetlands. Wetland monitoring was conducted at the PLF, FCs-1, -2, -3, and -4, B-Pond, East Shooting Range, C-1 Pond wetlands, in addition to several other small mitigation

wetlands areas at the Site. The results from the monitoring at these locations will be summarized and presented in the Annual Wetland Mitigation Monitoring Progress Report for the RFS due to EPA on March 1, 2007.

Additional wetland monitoring was conducted at the 903 lip area, per the requirements of a letter received from the EPA (August 26, 2003). Potential wetlands on the hillside of the 903 lip area were mapped and characterized prior to the 903 Lip Cleanup Project. They have been monitored since then to evaluate how they have recovered after project completion. Qualitative assessments and mapping were conducted to evaluate their condition. A report summarizing the status of the wetlands on the hillside will be prepared and delivered to EPA after the first of the year.

The locations of seeps on the OLF were GPS'ed in late July to provide a baseline of where wet spots were present on the surface of the OLF. In the future, these data can be used to track the presence/absence of seeps and wet areas on the cover of the OLF.

Wetland species were seeded at locations where wet/seep areas where present in the IA or at areas that needed additional wetland seeding. Some of the locations that were seeded included the FC-1 wetland area, Solar Ponds discharge gallery, and OLF berms. Water was re-routed at three wetland locations to help further flood the areas and increase the amount of wetland vegetation establishment. At FC-1, FC-4, and the FC-2 hillside wetland, water was re-routed by cutting small ditches through berms and other areas to get water to flow to drier locations, in order to increase wetland establishment.

6.3 Erosion Control/Revegetation Monitoring/Maintenance Activities

Monitoring of erosion controls in Preble's mouse habitat was conducted weekly and at other locations during normal day to day operations to ensure continued functioning of the erosion control measures. As needed, small repairs were made to wattles, hay bales, and erosion matting. Repairs were made at FC-5 after a storm event began eroding areas along wattles and undercut a small amount of riprap. The wattles were realigned to slow water and redirect it more effectively. Additional erosion matting was also installed at FC-5 to help prevent sheet erosion. At FC-1, additional wattles and haybales were added to different locations to redirect water across the bottom of FC-1 to in an attempt increase the area of wetland at this location. Berm #3 on the OLF was trenched using handtools to help re-establish the flow of water down the berm and eliminate the standing pools of water that were present. Additional erosion controls such as wattles, hay bales, Georidge berms, and stakes were ordered so as to have a supply on hand for occasional small scale repairs.

Semi-quantitative revegetation monitoring was conducted during the 3rd quarter of CY 2006 to evaluate the establishment of vegetation at revegetation locations across the Site. The monitoring methodology provided in the Rocky Flats, Colorado, Site Revegetation Plan was used with some modification. The Revegetation Plan described a mapping method to be used to initially distinguish between good and poor vegetation establishment areas. The mapping data was originally going to be used to help provide a stratified monitoring design to assist in locating the quadrats. The mapping was not conducted after attempts to apply the idea in the field yielded poor quality results. Instead, the revegetation areas were divided into "units" or areas based on geographic features (i.e., roads, streams) or previous building areas (i.e., 700 Area, 400 Area). Quadrat locations were randomly generated in the GIS and then located on the ground for

monitoring. The data will be analyzed and summarized for inclusion in the 2006 RFS Annual Report.

Photo monitoring was conducted across the Site at previously established photo points. The photo points are located throughout the Buffer Zone and old IA to document changes in the vegetation over time. In the IA, one series of photo points has been used to document the change from an industrial complex to native grassland. The photos are used for evaluating grassland establishment in revegetation areas, wetland establishment, weed control effectiveness, and general change in response to climate variations. The photo monitoring results will be presented in the 2006 RFS Annual Report.

Seed collection of yucca and wild indigo (leadplant) from locations on Site was made in fall 2006. The yucca seed will be spread in the revegetation area in the IA while the leadplant seed will be used at various wetland areas.

6.4 Weed Control Management and Monitoring

Diffuse knapweed was mapped across the Site during the 3rd quarter of CY 2006. The mapping results will be used to help with planning weed control efforts in 2007. Other smaller scale infestations of more localized weed have been mapped fortuitously throughout the summer. The results of the noxious weed mapping conducted in 2006 will be presented in the 2006 RFS Annual Report.

Several weed control activities were conducted at the Site during the 3rd quarter of CY 2006. Past weed mapping efforts and additional field observations were used to determine where weed control activities would be most effective in 2006. Hand control and spot spraying were used at several locations where small or isolated populations of certain weed species were present. Hand control was used to help control some small infestations of wild carrot and chicory that had established in a revegetation area on the east side of the old IA, north of where B991 once was located. Continued monitoring and control of these and other infestations will be done in 2007.

The spring/early summer herbicide applications that were begun during the 2nd quarter of CY 2006 were completed in July. This included a number of locations in Preble's mouse habitat. During the 3rd quarter of CY 2006, approximately 210 acres of additional native grassland, revegetation areas, wetland edges, and roadside edges were treated with herbicides to help control noxious weeds. The primary target species during the 3rd quarter of CY 2006 included diffuse knapweed, Scotch thistle, Canada thistle, annual rye, and jointed goatgrass. The herbicides used varied depending on the location and target species. The list of herbicides used at the various locations included Milestone, Plateau, Escort, and Telar. A map showing the general locations where the different herbicides were used in 2006 will be included in the 2006 RFS Annual Report. Most of the locations treated in the early fall were done to help get a head start on control for 2007. Many of these species often germinate and overwinter as rosettes until next spring when they then bolt, flower, and set seed. Spraying the rosettes in the fall helps eliminate the "early" bloomers for next spring.

Diffuse knapweed biocontrol monitoring was conducted at five locations in the Buffer Zone to continue to evaluate the effectiveness of biocontrol insects that have been released at the Site for diffuse knapweed control. In July, cover and density of diffuse knapweed was measured at each

of the locations. In September, the number of flowerheads per plant were counted and seedheads were clipped for dissection to determine seed production in 2006. The data will be summarized this winter for inclusion in the 2006 RFS Annual Report.

6.5 Rare Plant Monitoring

Populations of forktip three-awn, a state-wide rare grass, were evaluated at the Site in late September when the plant is most visible. General observations showed the overall abundance of the species was down from previous years, most likely due to the below average moisture conditions experienced at the Site throughout much of 2006. As an annual species, one of the important factors that contribute to the germination of the seeds is the abundance of moisture. Given the below average moisture conditions in 2006, much of the seed remained dormant and will simply wait until conditions are conducive before germinating. Many of the plants observed in 2006 had flowered and gone to seed. So the populations of the forktip three-awn at the Site continue to exist and do well, despite the somewhat adverse conditions experienced in 2006. The monitoring data will be analyzed this winter and included in the 2006 RFS Annual Report.

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Appendix A: Analytical R	esults for Water San		CY06									-
LOCATION CODE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	DECLUT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-	DATA VALIDATION QUALIFIERS
0487	8/30/2006	06080481	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	II	E	0.16	TAINTT	valid
0487	8/30/2006	06080481	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.16	ug/L ug/L	11	F	0.10		valid
0487	8/30/2006	06080481	79-00-5	1,1,2-Trichloroethane	N001	0.32	ug/L	II	F	0.32		valid
0487	8/30/2006	06080481	75-34-3	1,1-Dichloroethane	N001	0.16	ug/L	II	F	0.16		valid
0487	8/30/2006	06080481	75-35-4	1,1-Dichloroethene	N001	0.17	ug/L	J	F	0.14		valid
0487	8/30/2006	06080481	120-82-1	1,2,4-Trichlorobenzene	N001	0.32	ug/L	U	F	0.32		valid
0487	8/30/2006	06080481	96-12-8	1,2-Dibromo-3-chloropropane	N001	1.5	ug/L	U	F	1.5		valid
0487	8/30/2006	06080481	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		valid
0487	8/30/2006	06080481	95-50-1	1,2-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		valid
0487	8/30/2006	06080481	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		valid
0487	8/30/2006	06080481	78-87-5	1,2-Dichloropropane	N001	0.13	ug/L	U	F	0.13		valid
0487	8/30/2006	06080481	541-73-1	1,3-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid
0487	8/30/2006	06080481	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid
0487	8/30/2006	06080481	78-93-3	2-Butanone	N001	1.8	ug/L	U	F	1.8		valid
0487	8/30/2006	06080481	108-10-1	4-Methyl-2-Pentanone	N001	0.49	ug/L	U	F	0.49		valid
0487	8/30/2006	06080481	67-64-1	Acetone	N001	1.9	ug/L	U	F	1.9		valid
0487	8/30/2006	06080481	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		valid
0487	8/30/2006	06080481	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		valid
0487	8/30/2006	06080481	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		valid
0487	8/30/2006	06080481	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		valid
0487	8/30/2006	06080481	75-15-0	Carbon Disulfide	N001	0.45	ug/L	U	F	0.45		valid
0487	8/30/2006	06080481	56-23-5	Carbon tetrachloride	N001	2.6	ug/L		F	0.19		valid
0487	8/30/2006	06080481	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		valid
0487	8/30/2006	06080481	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		valid
0487	8/30/2006	06080481	75-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		valid
0487	8/30/2006	06080481	67-66-3	Chloroform	N001	1.5	ug/L		F	0.16		valid
0487	8/30/2006	06080481	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		valid
0487	8/30/2006	06080481	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid
0487	8/30/2006	06080481	87-68-3	Hexachlorobutadiene	N001	0.12	ug/L	U	F	0.12		valid
0487	8/30/2006	06080481	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		valid
0487	8/30/2006	06080481	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		valid
0487	8/30/2006	06080481	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		valid
0487	8/30/2006	06080481	127-18-4	Tetrachloroethene	N001	2.3	ug/L		F	0.2		valid
0487	8/30/2006	06080481	108-88-3	Toluene	N001	0.6	ug/L	J	F	0.17		valid
0487	8/30/2006	06080481	100-41-4	Total Xylene	N001	0.16	ug/L	U	F	0.16		valid
0487	8/30/2006	06080481	1330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		valid
0487	8/30/2006	06080481	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid
0487	8/30/2006	06080481	10061-02-6	trans-1,3-dichloropropene	N001	0.8	ug/L	U	F	0.8		valid
0487	8/30/2006	06080481	79-01-6	Trichloroethene	N001	54	ug/L		F	0.32		valid
0487	8/30/2006	06080481	75-01-4	Vinyl chloride	N001	0.17	ug/L	U	F	0.17		valid
07391	9/29/2006	06100510	7440-61-1	Uranium	0001	240	ug/L		F	0.02		valid
41691	7/28/2006	06080450	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.024	mg/L	В	F	0.019		valid
45605	7/28/2006	06080450	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		valid
45605	7/28/2006	06080450	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.2	ug/L	U	F	0.2		valid
45605	7/28/2006	06080450	79-00-5	1,1,2-Trichloroethane	N001	0.32	ug/L	U	F	0.32		valid
45605	7/28/2006	06080450	75-34-3	1,1-Dichloroethane	N001	0.16	ug/L	U	JF	0.16		valid
45605	7/28/2006	06080450	75-35-4	1,1-Dichloroethene	N001	0.16	ug/L	J	F	0.14		valid
45605	7/28/2006	06080450	120-82-1	1,2,4-Trichlorobenzene	N001	0.32	ug/L	U	F	0.32		valid
45605	7/28/2006	06080450	96-12-8	1,2-Dibromo-3-chloropropane	N001	1.5	ug/L	U	F	1.5		valid
45605	7/28/2006	06080450	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		valid
45605	7/28/2006	06080450	95-50-1	1,2-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		valid
45605	7/28/2006	06080450	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		valid
45605	7/28/2006	06080450	78-87-5	1,2-Dichloropropane	N001	0.13	ug/L	U	F	0.13		valid
45605	7/28/2006	06080450	541-73-1	1,3-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid

Appendix A: Analytical Re	suits for water San	LAB	C100	T	1				1	1		1
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID	DECILIT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
45605	7/28/2006	06080450	106-46-7	1.4-Dichlorobenzene	N001	0.16	ug/L	II	F	0.16	IAMITI	valid
45605	7/28/2006	06080450	78-93-3	2-Butanone	N001		ug/L	IJ	F	1.8		valid
45605	7/28/2006	06080450	108-10-1	4-Methyl-2-Pentanone	N001	0.49	ug/L	IJ	F	0.49		valid
45605	7/28/2006	06080450	67-64-1	Acetone	N001		ug/L	U	F	1.9		valid
45605	7/28/2006	06080450	71-43-2	Benzene	N001		ug/L	U	F	0.16		valid
45605	7/28/2006	06080450	75-27-4	Bromodichloromethane	N001		ug/L	U	F	0.17		valid
45605	7/28/2006	06080450	75-25-2	Bromoform	N001	0.17	ug/L	U .	F	0.19		valid
45605	7/28/2006	06080450	74-83-9	Bromomethane	N001	0.13	ug/L	U	F	0.13		valid
45605	7/28/2006	06080450	75-15-0	Carbon Disulfide	N001	0.45	ug/L	U .	F	0.45		valid
45605	7/28/2006	06080450	56-23-5	Carbon tetrachloride	N001		ug/L	U	F.	0.19		valid
45605	7/28/2006	06080450	108-90-7	Chlorobenzene	N001	0.17	ug/L	II	F	0.17		valid
45605	7/28/2006	06080450	124-48-1	Chlorodibromomethane	N001		ug/L	U	F	0.17		valid
45605	7/28/2006	06080450	75-00-3	Chloroethane	N001	0.41	ug/L	<u>U</u>	F	0.41		valid
45605	7/28/2006	06080450	67-66-3	Chloroform	N001		ug/L	U .	F	0.16		valid
45605	7/28/2006	06080450	74-87-3	Chloromethane	N001		ug/L	II	F	0.3		valid
45605	7/28/2006	06080450	156-59-2	cis-1,2-Dichloroethene	N001		ug/L		F.	0.75		valid
45605	7/28/2006	06080450	87-68-3	Hexachlorobutadiene	N001		ug/L	П	<u>-</u>	0.12		valid
45605	7/28/2006	06080450	75-09-2	Methylene chloride	N001		ug/L ug/L	II	F.	0.32		valid
45605	7/28/2006	06080450	91-20-3	Naphthalene	N001		ug/L	U	<u>-</u>	0.22		valid
45605	7/28/2006	06080450	100-42-5	Styrene	N001		ug/L	II	<u>-</u>	0.17		valid
45605	7/28/2006	06080450	127-18-4	Tetrachloroethene	N001		ug/L ug/L	U	F	0.17		valid
45605	7/28/2006	06080450	108-88-3	Toluene	N001		ug/L ug/L	II	F	0.17		valid
45605	7/28/2006	06080450	100-66-3	Total Xylene	N001	0.17	ug/L ug/L	IJ	F	0.16		valid
45605	7/28/2006	06080450	1330-20-7	Total Xylenes	N001	0.10	ug/L	II	F	0.19		valid
45605 45605	7/28/2006	06080450	156-60-5	,	N001			U	<u></u>	0.15		valid
45605 45605	7/28/2006	06080450	10061-02-6	trans-1,2-Dichloroethene trans-1,3-dichloropropene	N001	4.7 0.8	ug/L ug/L		-	0.15		valid
45605								II	<u></u>	0.16		
45605	7/28/2006 7/28/2006	06080450	79-01-6 75-01-4	Trichloroethene	N001 N001	0.16 0.17	ug/L	II	F	0.16		valid valid
70193		06080450 06080464		Vinyl chloride		-	ug/L	IJ	<u></u>	-		
70193 70193	8/15/2006	06080464	71-55-6 79-34-5	1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane	N001 N001		ug/L ug/L	U	F	0.16		valid valid
70193	8/15/2006 8/15/2006	06080464	79-34-5	1,1,2-Trichloroethane	N001	0.32	ug/L ug/L	U	<u></u>	0.32		valid
70193	8/15/2006	06080464	75-34-3	1,1-Dichloroethane	N001	0.32	ug/L ug/L	II	<u></u>	0.32		valid
70193	8/15/2006	06080464	75-34-3	1,1-Dichloroethane	N001	0.16	ug/L ug/L	IJ	<u></u>	0.14		valid
70193	8/15/2006	06080464	120-82-1	1,2,4-Trichlorobenzene	N001		ug/L	IJ	-	0.14	-	valid
70193	8/15/2006	06080464	96-12-8	1,2-Dibromo-3-chloropropane	N001		ug/L ug/L	U	<u></u>	1.5		valid
70193	8/15/2006	06080464	106-93-4	1,2-Dibromoethane	N001		ug/L	U	F	0.18		valid
70193	8/15/2006	06080464	95-50-1	1,2-Dichlorobenzene	N001		ug/L ug/L	IJ	F	0.13		valid
70193	8/15/2006	06080464	107-06-2	1,2-Dichloroethane	N001		ug/L	U	-	0.13	-	valid
70193	8/15/2006	06080464	78-87-5	1,2-Dichloropropane	N001	0.13	ug/L ug/L	II	-	0.13	-	valid
70193		06080464	541-73-1		N001	0.16		IJ	F	0.16		
70193	8/15/2006 8/15/2006	06080464	106-46-7	1,3-Dichlorobenzene	N001	0.16	ug/L ug/L	IJ	F	0.16		valid valid
70193	8/15/2006	06080464	78-93-3	1,4-Dichlorobenzene 2-Butanone	N001	1.8	·	IJ	F	1.8		valid
70193	8/15/2006	06080464	108-10-1	4-Methyl-2-Pentanone	N001		ug/L ug/L	U	F	0.49		valid
70193	8/15/2006	06080464	67-64-1	Acetone	N001		ug/L ug/L	IJ	<u>'</u>	1.9		valid
70193	8/15/2006	06080464	107-02-8	Acrolein	N001	2.8	ug/L ug/L	II	·	2.8	-	valid
70193	8/15/2006	06080464	107-02-8	Acrylonitrile	N001		ug/L ug/L	U	·	1.4	-	valid
70193	8/15/2006	06080464	7429-90-5	Aluminum	0001		ug/L ug/L	В	F	1.4	-	valid U
70193	8/15/2006	06080464	71-43-2	Benzene	N001		ug/L ug/L	11	<u>.</u>	0.16	 	valid
70193	8/15/2006	06080464	75-27-4	Bromodichloromethane	N001		ug/L ug/L	IJ	<u>.</u>	0.17	 	valid
70193	8/15/2006	06080464	75-27-4	Bromoform	N001			IJ	<u>'</u>	0.17		valid
70193		06080464	74-83-9		N001		ug/L	U	F	0.19		valid
70193	8/15/2006	06080464	74-83-9	Bromomethane	0001		ug/L	В	-	0.21		valid
	8/15/2006			Cadmium Carban Digulfida			ug/L		F		-	
70193	8/15/2006	06080464	75-15-0	Carbon Disulfide	N001		ug/L	U	<u> </u>	0.45		valid
70193	8/15/2006	06080464	56-23-5	Carbon tetrachloride	N001		ug/L	U	ir F	0.19		valid
70193	8/15/2006	06080464	108-90-7	Chlorobenzene	N001		ug/L	U	F	0.17	-	valid
70193	8/15/2006	06080464	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	ļr	0.17		valid

Appendix A: Analytical R	esults for Water San		CY06		•							
		LAB										
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION_CODE	DATE SAMPLED		CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
70193	8/15/2006	06080464	75-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		valid
70193	8/15/2006	06080464	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		valid
70193	8/15/2006	06080464	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		valid
70193	8/15/2006	06080464	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid
70193	8/15/2006	06080464	7440-50-8	Copper	0001	4.5	ug/L	U	F	4.5		valid
70193	8/15/2006	06080464	87-68-3	Hexachlorobutadiene	N001	0.12	ug/L	U	F	0.12		valid
70193	8/15/2006	06080464	7439-92-1	Lead	0001	2.6	ug/L	U	F	2.6		valid
70193	8/15/2006	06080464	M&P XYLENE	m,p-Xylene	N001	0.34	ug/L	U	F	0.34		valid
70193	8/15/2006	06080464	75-09-2	Methylene chloride	N001	0.4	ug/L	J	F	0.32		valid
70193	8/15/2006	06080464	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		valid
70193	8/15/2006	06080464	7440-02-0	Nickel	0001	7.8	ug/L	U	F	7.8		valid
70193	8/15/2006	06080464	95-47-6	o-Xylene	N001	0.19	ug/L	U	F	0.19		valid
70193	8/15/2006	06080464	7440-22-4	Silver	0001	2.8	ug/L	U	F	2.8		valid
70193	8/15/2006	06080464	100-42-5	Styrene	N001	0.17	ug/L	Ü	F	0.17		valid
70193	8/15/2006	06080464	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		valid
70193	8/15/2006	06080464	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		valid
70193	8/15/2006	06080464	100-41-4	Total Xylene	N001	0.16	ug/L	U	F	0.16		valid
70193	8/15/2006	06080464	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid
70193	8/15/2006	06080464	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		valid
70193	8/15/2006	06080464	75-01-4	Vinyl chloride	N001	0.17	ug/L	U	F	0.17		valid
70193	8/15/2006	06080464	7440-66-6	Zinc	0001	7.4	ug/L	В	F	4.5		U
70393	8/16/2006	06080464	71-55-6	1,1,1-Trichloroethane	N001	4	ug/L		F	0.16		valid
70393	8/16/2006	06080464	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.2	ug/L	U	F	0.2		valid
70393	8/16/2006	06080464	79-00-5	1,1,2-Trichloroethane	N001	0.32	ug/L	U .	F	0.32		valid
70393	8/16/2006	06080464	75-34-3	1,1-Dichloroethane	N001	0.16	ug/L	U	-	0.16		valid
70393	8/16/2006	06080464	75-34-3	1,1-Dichloroethene	N001	6.3	ug/L	U	<u>-</u>	0.14		I
70393	8/16/2006	06080464	120-82-1	1,2,4-Trichlorobenzene	N001	0.32	ug/L	U	-	0.32		valid
70393	8/16/2006	06080464	96-12-8	1,2-Dibromo-3-chloropropane	N001	1.5	ug/L	П	-	1.5		valid
70393	8/16/2006	06080464	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	Ė	0.18		valid
70393	8/16/2006	06080464	95-50-1	1,2-Dichlorobenzene	N001	0.18	ug/L ug/L	11	F	0.13		valid
70393	8/16/2006	06080464	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	11	Ė	0.13		valid
70393	8/16/2006	06080464	78-87-5	1,2-Dichloropropane	N001	0.13	ug/L	П	Ė	0.13		valid
70393	8/16/2006	06080464	541-73-1	1,3-Dichlorobenzene	N001	0.16	ug/L ug/L	11	F	0.16		valid
70393	8/16/2006	06080464	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L ug/L	11	_	0.16		valid
70393	8/16/2006	06080464	78-93-3	2-Butanone	N001	1.8	ug/L ug/L	11	_	1.8		valid
70393	8/16/2006	06080464	108-10-1	4-Methyl-2-Pentanone	N001	0.49	ug/L ug/L	U	-	0.49	-	valid
70393	8/16/2006	06080464	67-64-1	Acetone	N001	1.9		U	-	1.9	-	valid
70393	_	06080464			N001		ug/L	U	_	2.8		
70393	8/16/2006 8/16/2006	06080464	107-02-8 107-13-1	Acrolein Acrylonitrile	N001	2.8 1.4	ug/L ug/L	U	<u>r</u>	1.4		valid valid
70393	8/16/2006	06080464	7429-90-5	Aluminum	0001	47	ug/L ug/L	В	<u>'</u>	18	+	U
70393	8/16/2006	06080464	7429-90-5	Benzene	N001	0.16	ug/L ug/L	II	<u>'</u>	0.16	-	valid
70393	8/16/2006	06080464	71-43-2 75-27-4		N001		·	U	F	0.16		valid
70393	8/16/2006	06080464	75-27-4 75-25-2	Bromodichloromethane Bromoform	N001	0.17 0.19	ug/L ug/L	U	E	0.17		valid
								11	-	0.19		
70393	8/16/2006	06080464	74-83-9	Bromomethane	N001	0.21	ug/L	U U	F			valid
70393	8/16/2006	06080464	7440-43-9	Cadmium Carbon Digulfida	0001	0.45	ug/L	II	F	0.45	-	valid
70393	8/16/2006	06080464	75-15-0	Carbon Disulfide	N001	0.45	ug/L	U I	F	0.45	-	valid
70393	8/16/2006	06080464	56-23-5	Carbon tetrachloride	N001	0.21	ug/L	J II	F	0.19		valid
70393	8/16/2006	06080464	108-90-7	Chlorobenzene	N001	0.17	ug/L	Ü	-	0.17	-	valid
70393	8/16/2006	06080464	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		valid
70393	8/16/2006	06080464	75-00-3	Chloroethane	N001	0.41	ug/L	U	<u> </u>	0.41		valid
70393	8/16/2006	06080464	67-66-3	Chloroform	N001	0.16	ug/L	U	 -	0.16		valid
70393	8/16/2006	06080464	74-87-3	Chloromethane	N001	0.3	ug/L	U	IF	0.3		valid
70393	8/16/2006	06080464	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid
70393	8/16/2006	06080464	7440-50-8	Copper	0001	4.5	ug/L	U	<u> </u> F	4.5		valid
70393	8/16/2006	06080464	87-68-3	Hexachlorobutadiene	N001	0.12	ug/L	U	F	0.12		valid
70393	8/16/2006	06080464	7439-92-1	Lead	0001	2.6	ug/L	U	F	2.6		valid

		LAB										
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION_CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID		UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
70393	8/16/2006	06080464	M&P XYLENE	m,p-Xylene	N001	0.34	ug/L	U	F	0.34		valid
70393	8/16/2006	06080464	75-09-2	Methylene chloride	N001		ug/L	U	F	0.32		valid
70393	8/16/2006	06080464	91-20-3	Naphthalene	N001		ug/L	U U	F	0.22		valid
70393 70393	8/16/2006 8/16/2006	06080464 06080464	7440-02-0 95-47-6	Nickel o-Xylene	0001 N001		ug/L ug/L	U	r	7.8 0.19		valid valid
70393	8/16/2006	06080464	7440-22-4	Silver	0001		ug/L ug/L	II	r -	2.8		valid
70393	8/16/2006	06080464	100-42-5	Styrene	N001	_	ug/L ug/L	IJ	F	0.17		valid
70393	8/16/2006	06080464	127-18-4	Tetrachloroethene	N001		ug/L ug/L	U	r -	0.17		valid
70393	8/16/2006	06080464	108-88-3	Toluene	N001		ug/L ug/L	11	r -	0.2		valid
70393	8/16/2006	06080464	100-66-3	Total Xylene	N001	0.17	ug/L ug/L	11	F	0.16		valid
70393	8/16/2006	06080464	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	IJ	<u> </u>	0.15		valid
70393	8/16/2006	06080464	79-01-6	Trichloroethene	N001	11	ug/L	0	<u> </u>	0.16		I
70393	8/16/2006	06080464	75-01-4	Vinyl chloride	N001	0.17	ug/L ug/L	П	<u> </u>	0.17		valid
70393	8/16/2006	06080464	7440-66-6	Zinc	0001	5.7	ug/L ug/L	B	F	4.5		U
70693	8/16/2006	06080464	71-55-6	1,1,1-Trichloroethane	N001		ug/L		r F	0.16		valid
70693	8/16/2006	06080464	79-34-5	1,1,2,2-Tetrachloroethane	N001		ug/L	П	<u> </u>	0.10		valid
70693	8/16/2006	06080464	79-00-5	1,1,2-Trichloroethane	N001		ug/L ug/L	II	r F	0.32		valid
70693	8/16/2006	06080464	75-34-3	1,1-Dichloroethane	N001		ug/L ug/L	IJ	F	0.16		valid
70693	8/16/2006	06080464	75-35-4	1,1-Dichloroethene	N001		ug/L		r F	0.14		I
70693	8/16/2006	06080464	120-82-1	1,2,4-Trichlorobenzene	N001		ug/L	П	r F	0.32		valid
70693	8/16/2006	06080464	96-12-8	1,2-Dibromo-3-chloropropane	N001	1.5	ug/L	II	r F	1.5		valid
70693	8/16/2006	06080464	106-93-4	1,2-Dibromoethane	N001		ug/L	U	F	0.18		valid
70693	8/16/2006	06080464	95-50-1	1,2-Dichlorobenzene	N001		ug/L	IJ	r F	0.13		valid
70693	8/16/2006	06080464	107-06-2	1,2-Dichloroethane	N001		ug/L	U	F	0.13		valid
70693	8/16/2006	06080464	78-87-5	1,2-Dichloropropane	N001	-	ug/L	U	r F	0.13		valid
70693	8/16/2006	06080464	541-73-1	1,3-Dichlorobenzene	N001		ug/L	U	F	0.16		valid
70693	8/16/2006	06080464	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid
70693	8/16/2006	06080464	78-93-3	2-Butanone	N001	1.8	ug/L	U	F	1.8		valid
70693	8/16/2006	06080464	108-10-1	4-Methyl-2-Pentanone	N001	0.49	ug/L	U	F	0.49		valid
70693	8/16/2006	06080464	67-64-1	Acetone	N001		ug/L	U	F	1.9		valid
70693	8/16/2006	06080464	107-02-8	Acrolein	N001	2.8	ug/L	U	F	2.8		valid
70693	8/16/2006	06080464	107-13-1	Acrylonitrile	N001		ug/L	U	F	1.4		valid
70693	8/16/2006	06080464	7429-90-5	Aluminum	0001	52	ug/L	В	F	18		U
70693	8/16/2006	06080464	71-43-2	Benzene	N001		ug/L	U	F	0.16		valid
70693	8/16/2006	06080464	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		valid
70693	8/16/2006	06080464	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		valid
70693	8/16/2006	06080464	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		valid
70693	8/16/2006	06080464	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		valid
70693	8/16/2006	06080464	75-15-0	Carbon Disulfide	N001	0.45	ug/L	U	F	0.45		valid
70693	8/16/2006	06080464	56-23-5	Carbon tetrachloride	N001	0.38	ug/L	J	F	0.19		valid
70693	8/16/2006	06080464	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		valid
70693	8/16/2006	06080464	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		valid
70693	8/16/2006	06080464	75-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		valid
70693	8/16/2006	06080464	67-66-3	Chloroform	N001	0.27	ug/L	J	F	0.16		valid
70693	8/16/2006	06080464	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		valid
70693	8/16/2006	06080464	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid
70693	8/16/2006	06080464	7440-50-8	Copper	0001		ug/L	U	F	4.5		valid
70693	8/16/2006	06080464	87-68-3	Hexachlorobutadiene	N001	0.12	ug/L	U	F	0.12		valid
70693	8/16/2006	06080464	7439-92-1	Lead	0001	2.6	ug/L	U	F	2.6		valid
70693	8/16/2006	06080464	M&P XYLENE	m,p-Xylene	N001	0.34	ug/L	U	F	0.34		valid
70693	8/16/2006	06080464	75-09-2	Methylene chloride	N001		ug/L	J	F	0.32		valid
70693	8/16/2006	06080464	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		valid
70693	8/16/2006	06080464	7440-02-0	Nickel	0001		ug/L	U	F	7.8		valid
70693	8/16/2006	06080464	95-47-6	o-Xylene	N001	0.19	ug/L	U	F	0.19		valid
70693	8/16/2006	06080464	7440-22-4	Silver	0001		ug/L	U	F	2.8		valid
70693	8/16/2006	06080464	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		valid

Appendix A: Analytical Re	suits for water san	LAB	1		I		1	I		1		1
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID	DECILIT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
70693	8/16/2006	06080464	127-18-4	Tetrachloroethene	N001	2	ug/L	QUALITIENS	F	0.2	IAINTI	valid
70693	8/16/2006	06080464	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		valid
70693	8/16/2006	06080464	100-41-4	Total Xylene	N001	0.16	ug/L	U	F	0.16		valid
70693	8/16/2006	06080464	156-60-5	trans-1,2-Dichloroethene	N001		ug/L	U	F	0.15		valid
70693	8/16/2006	06080464	79-01-6	Trichloroethene	N001		ug/L		F	0.16		J
70693	8/16/2006	06080464	75-01-4	Vinyl chloride	N001		ug/L	U	F	0.17		valid
70693	8/16/2006	06080464	7440-66-6	Zinc	0001	5.4	ug/L	В	F	4.5		U
73105	8/30/2006	06080481	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		valid
73105	8/30/2006	06080481	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.2	ug/L	U	F	0.2		valid
73105	8/30/2006	06080481	79-00-5	1,1,2-Trichloroethane	N001		ug/L	Ü	F	0.32		valid
73105	8/30/2006	06080481	75-34-3	1,1-Dichloroethane	N001	0.16	ug/L	U	F	0.16		valid
73105	8/30/2006	06080481	75-35-4	1,1-Dichloroethene	N001		ug/L	U	F	0.14		valid
73105	8/30/2006	06080481	120-82-1	1,2,4-Trichlorobenzene	N001	0.32	ug/L	U	F	0.32		valid
73105	8/30/2006	06080481	96-12-8	1,2-Dibromo-3-chloropropane	N001	1.5	ug/L	U	F	1.5		valid
73105	8/30/2006	06080481	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		valid
73105	8/30/2006	06080481	95-50-1	1,2-Dichlorobenzene	N001		ug/L	U	F	0.13		valid
73105	8/30/2006	06080481	107-06-2	1,2-Dichloroethane	N001		ug/L	U	F	0.13		valid
73105	8/30/2006	06080481	78-87-5	1,2-Dichloropropane	N001		ug/L	U	F	0.13		valid
73105	8/30/2006	06080481	541-73-1	1,3-Dichlorobenzene	N001		ug/L	U	F	0.16		valid
73105	8/30/2006	06080481	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid
73105	8/30/2006	06080481	78-93-3	2-Butanone	N001	1.8	ug/L	U	F	1.8		valid
73105	8/30/2006	06080481	108-10-1	4-Methyl-2-Pentanone	N001	0.49	ug/L	U	F	0.49		valid
73105	8/30/2006	06080481	67-64-1	Acetone	N001	1.9	ug/L	U	F	1.9		valid
73105	8/30/2006	06080481	107-02-8	Acrolein	N001	2.8	ug/L	U	F	2.8		valid
73105	8/30/2006	06080481	107-13-1	Acrylonitrile	N001	1.4	ug/L	U	F	1.4		valid
73105	8/30/2006	06080481	7429-90-5	Aluminum	0001	33	ug/L	В	F	18		valid
73105	8/30/2006	06080481	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		valid
73105	8/30/2006	06080481	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		valid
73105	8/30/2006	06080481	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		valid
73105	8/30/2006	06080481	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		valid
73105	8/30/2006	06080481	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		valid
73105	8/30/2006	06080481	75-15-0	Carbon Disulfide	N001	0.45	ug/L	U	F	0.45		valid
73105	8/30/2006	06080481	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		valid
73105	8/30/2006	06080481	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		valid
73105	8/30/2006	06080481	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		valid
73105	8/30/2006	06080481	75-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		valid
73105	8/30/2006	06080481	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		valid
73105	8/30/2006	06080481	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		valid
73105	8/30/2006	06080481	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid
73105	8/30/2006	06080481	7440-50-8	Copper	0001	4.5	ug/L	U	F	4.5		valid
73105	8/30/2006	06080481	87-68-3	Hexachlorobutadiene	N001	0.12	ug/L	U	F	0.12		valid
73105	8/30/2006	06080481	7439-92-1	Lead	0001	2.6	ug/L	U	F	2.6		valid
73105	8/30/2006	06080481	M&P XYLENE	m,p-Xylene	N001	2.4	ug/L		F	0.34		valid
73105	8/30/2006	06080481	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		valid
73105	8/30/2006	06080481	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		valid
73105	8/30/2006	06080481	7440-02-0	Nickel	0001		ug/L	U	F	7.8		valid
73105	8/30/2006	06080481	95-47-6	o-Xylene	N001		ug/L	U	F	0.19		valid
73105	8/30/2006	06080481	7440-22-4	Silver	0001		ug/L	U	F	2.8		valid
73105	8/30/2006	06080481	100-42-5	Styrene	N001		ug/L	U	F	0.17		valid
73105	8/30/2006	06080481	127-18-4	Tetrachloroethene	N001		ug/L	U	F	0.2		valid
73105	8/30/2006	06080481	108-88-3	Toluene	N001		ug/L	J	F	0.17		valid
73105	8/30/2006	06080481	100-41-4	Total Xylene	N001		ug/L	U	F	0.16		valid
73105	8/30/2006	06080481	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid
73105	8/30/2006	06080481	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		valid
73105	8/30/2006	06080481	75-01-4	Vinyl chloride	N001	0.17	ug/L	U	F	0.17		valid
73105	8/30/2006	06080481	7440-66-6	Zinc	0001	6.6	ug/L	В	F	4.5	L	valid

Appendix A: Analytical Ro	Suits for water San	LAB	C100	T	1			ı	1	1		1
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID	DECILIT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
73205	9/5/2006	06090483	71-55-6	1.1.1-Trichloroethane	N001	0.16	ug/L	II	F	0.16	IAINTI	valid
73205	9/5/2006	06090483	79-34-5	1,1,2,2-Tetrachloroethane	N001		ug/L	IJ	F	0.2		valid
73205	9/5/2006	06090483	79-00-5	1,1,2-Trichloroethane	N001	0.32	ug/L	U	F	0.32		valid
73205	9/5/2006	06090483	75-34-3	1,1-Dichloroethane	N001		ug/L	U	F	0.16		valid
73205	9/5/2006	06090483	75-35-4	1,1-Dichloroethene	N001		ug/L	U	F	0.14		valid
73205	9/5/2006	06090483	120-82-1	1,2,4-Trichlorobenzene	N001	0.32	ug/L	U	F	0.32		valid
73205	9/5/2006	06090483	96-12-8	1,2-Dibromo-3-chloropropane	N001	1.5	ug/L	U	F	1.5		valid
73205	9/5/2006	06090483	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		valid
73205	9/5/2006	06090483	95-50-1	1,2-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		valid
73205	9/5/2006	06090483	107-06-2	1,2-Dichloroethane	N001		ug/L	U	F	0.13		valid
73205	9/5/2006	06090483	78-87-5	1,2-Dichloropropane	N001	0.13	ug/L	U	F	0.13		valid
73205	9/5/2006	06090483	541-73-1	1,3-Dichlorobenzene	N001		ug/L	U	F	0.16		valid
73205	9/5/2006	06090483	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid
73205	9/5/2006	06090483	78-93-3	2-Butanone	N001		ug/L	U	F	1.8		valid
73205	9/5/2006	06090483	108-10-1	4-Methyl-2-Pentanone	N001		ug/L	U	F	0.49		valid
73205	9/5/2006	06090483	67-64-1	Acetone	N001		ug/L	J	F	1.9		U
73205	9/5/2006	06090483	107-02-8	Acrolein	N001		ug/L	U	F	2.8		valid
73205	9/5/2006	06090483	107-13-1	Acrylonitrile	N001		ug/L	U	F	1.4		valid
73205	9/5/2006	06090483	7429-90-5	Aluminum	0001	18	ug/L	U	F	18		valid
73205	9/5/2006	06090483	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		valid
73205	9/5/2006	06090483	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		valid
73205	9/5/2006	06090483	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		valid
73205	9/5/2006	06090483	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		valid
73205	9/5/2006	06090483	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		valid
73205	9/5/2006	06090483	75-15-0	Carbon Disulfide	N001	0.45	ug/L	U	F	0.45		valid
73205	9/5/2006	06090483	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		valid
73205	9/5/2006	06090483	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		valid
73205	9/5/2006	06090483	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		valid
73205	9/5/2006	06090483	75-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		valid
73205	9/5/2006	06090483	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		valid
73205	9/5/2006	06090483	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		valid
73205	9/5/2006	06090483	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid
73205	9/5/2006	06090483	7440-50-8	Copper	0001	4.5	ug/L	U	F	4.5		valid
73205	9/5/2006	06090483	87-68-3	Hexachlorobutadiene	N001	0.12	ug/L	U	F	0.12		valid
73205	9/5/2006	06090483	7439-92-1	Lead	0001	2.6	ug/L	U	F	2.6		valid
73205	9/5/2006	06090483	M&P XYLENE	m,p-Xylene	N001	0.34	ug/L	U	F	0.34		valid
73205	9/5/2006	06090483	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		valid
73205	9/5/2006	06090483	91-20-3	Naphthalene	N001		ug/L	U	F	0.22		valid
73205	9/5/2006	06090483	7440-02-0	Nickel	0001	7.8	ug/L	U	F	7.8		valid
73205	9/5/2006	06090483	95-47-6	o-Xylene	N001	0.19	ug/L	U	F	0.19		valid
73205	9/5/2006	06090483	7440-22-4	Silver	0001	2.8	ug/L	U	F	2.8		valid
73205	9/5/2006	06090483	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		valid
73205	9/5/2006	06090483	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		valid
73205	9/5/2006	06090483	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		valid
73205	9/5/2006	06090483	100-41-4	Total Xylene	N001	0.16	ug/L	U	F	0.16		valid
73205	9/5/2006	06090483	156-60-5	trans-1,2-Dichloroethene	N001		ug/L	U	F	0.15		valid
73205	9/5/2006	06090483	79-01-6	Trichloroethene	N001		ug/L	U	F	0.16		valid
73205	9/5/2006	06090483	75-01-4	Vinyl chloride	N001		ug/L	U	F	0.17		valid
73205	9/5/2006	06090483	7440-66-6	Zinc	0001		ug/L		F	4.5		U
80005	9/5/2006	06090483	71-55-6	1,1,1-Trichloroethane	N001		ug/L	U	F	0.16		valid
80005	9/5/2006	06090483	79-34-5	1,1,2,2-Tetrachloroethane	N001		ug/L	U	F	0.2		valid
80005	9/5/2006	06090483	79-00-5	1,1,2-Trichloroethane	N001		ug/L	U	F	0.32		valid
80005	9/5/2006	06090483	75-34-3	1,1-Dichloroethane	N001		ug/L	U	F	0.16		valid
80005	9/5/2006	06090483	75-35-4	1,1-Dichloroethene	N001		ug/L	U	F	0.14		valid
80005	9/5/2006	06090483	95-94-3	1,2,4,5-Tetrachlorobenzene	N001		ug/L	U	F	2		valid
80005	9/5/2006	06090483	120-82-1	1,2,4-Trichlorobenzene	N001	0.32	ug/L	U	F	0.32		valid

Appendix A: Analytical Re	suits for water San		CYUO	<u> </u>	1	1		T	T	1	1	T 1
		LAB REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID	DECLILT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
80005	9/5/2006	06090483	96-12-8	1,2-Dibromo-3-chloropropane	N001	1.5	ug/L	QUALIFIERS	I TPE	1.5	IAINIT	valid
80005	9/5/2006	06090483	106-93-4	1,2-Dibromoethane	N001		ug/L ug/L	IJ	r =	0.18		valid
80005	9/5/2006	06090483	95-50-1	1,2-Dichlorobenzene	N001	0.18	ug/L ug/L	IJ	r =	0.13		valid
80005	9/5/2006	06090483	107-06-2	,	N001		Ü	U	F	0.13		valid
80005	9/5/2006	06090483	78-87-5	1,2-Dichloroethane 1,2-Dichloropropane	N001		ug/L ug/L	IJ	<u>r</u>	0.13		valid
80005	9/5/2006	06090483	122-66-7	1,2-Dichloroproparie	N001		ug/L	U	F	0.64		valid
80005	9/5/2006	06090483	541-73-1	1,3-Dichlorobenzene	N001	0.04	ug/L	II	F	0.16		valid
80005	9/5/2006	06090483	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid
80005	9/5/2006	06090483	105-46-7	2, 4-Dimethylphenol	N001	0.16	ug/L ug/L	II	F	0.16		valid
80005	9/5/2006	06090483	88-06-2	2,4,6-Trichlorophenol	N001		ug/L ug/L	U	F	5		valid
80005	9/5/2006	06090483	120-83-2	2,4-Dichlorophenol	N001		ug/L	П	E	1.3		valid
80005	9/5/2006	06090483	51-28-5	2,4-Dinitrophenol	N001		ug/L	IJ	F	20		valid
80005	9/5/2006	06090483	121-14-2	2,4-Dinitrotoluene	N001	5	ug/L	11	F	5		valid
80005	9/5/2006	06090483	606-20-2	2,6-Dinitrotoluene	N001	5	ug/L ug/L	11	F	5		valid
80005	9/5/2006	06090483	78-93-3	2-Butanone	N001		ug/L	U	F	1.8		valid
80005	9/5/2006	06090483	91-58-7	2-Chloronaphthalene	N001		ug/L	II	F	1.7		valid
80005	9/5/2006	06090483	95-57-8	2-Chlorophenol	N001		ug/L	U	F	0.38		valid
80005	9/5/2006	06090483	95-48-7	2-Methylphenol	N001		ug/L	II	F	1.4		valid
80005	9/5/2006	06090483	91-94-1	3,3'-Dichlorobenzidine	N001		ug/L	U	F	1.4		valid
80005	9/5/2006	06090483	534-52-1	4,6-Dinitro-2-methyl phenol	N001		ug/L ug/L	II	F	20		valid
80005		06090483	59-50-7	4-Chloro-3-methylphenol	N001		ug/L ug/L	U	F	5		valid
80005	9/5/2006 9/5/2006	06090483	108-10-1	4-Methyl-2-Pentanone	N001		ug/L ug/L	II	<u>r</u>	0.49		valid
80005		06090483	100-10-1		N001	1.7		IJ	F	1.7		valid
80005	9/5/2006 9/5/2006	06090483	83-32-9	4-Nitrophenol Acenaphthene	N001	1.7	ug/L ug/L	II	F	1.7		valid
								IJ	F			
80005 80005	9/5/2006	06090483	208-96-8	Acenaphthylene	N001 N001	1.8 24	ug/L ug/L	U	F	1.8		valid U
80005	9/5/2006	06090483	67-64-1	Acetone				H	F			_
80005	9/5/2006 9/5/2006	06090483 06090483	107-02-8 107-13-1	Acrolein	N001 N001	1.4	ug/L	II	F	1.4		valid valid
		06090483	7429-90-5	Acrylonitrile Aluminum			ug/L	В	F	18		U
80005 80005	9/5/2006	06090483	120-12-7	Anthracene	0001 N001		ug/L ug/L	IJ	<u>r</u>	1.9		valid
80005	9/5/2006 9/5/2006	06090483	56-55-3	Benz(a)anthracene	N001	1.7	ug/L ug/L	U	F	1.7		valid
80005		06090483	71-43-2	Benzene	N001	0.16	ug/L	II	F	0.16		valid
80005	9/5/2006 9/5/2006	06090483	92-87-5	Benzidine	N001	50	ug/L ug/L	II	F	50		valid
80005	9/5/2006	06090483	50-32-8		N001		ug/L	IJ	r	1.3		valid
80005	9/5/2006	06090483	205-99-2	Benzo(a)pyrene Benzo(b)fluoranthene	N001		ug/L ug/L	U	r =	0.39		valid
80005	9/5/2006	06090483	191-24-2	Benzo(g,h,i)Perylene	N001		ug/L	U	F	1		valid
80005	9/5/2006	06090483	207-08-9	Benzo(k)fluoranthene	N001		ug/L	IJ	F	0.46		valid
80005	9/5/2006	06090483	111-44-4	Bis(2-chloroethyl) ether	N001		ug/L	U	F	3.9		valid
80005	9/5/2006	06090483	108-60-1	Bis(2-chloroisopropyl) ether	N001	0.43	ug/L ug/L	II	F	0.43		valid
80005	9/5/2006	06090483	117-81-7	Bis(2-ethylhexyl) phthalate	N001	5	ug/L	IJ	F	5		valid
80005	9/5/2006	06090483	75-27-4	_ , ,,,	N001	0.17	ug/L	IJ	F	0.17		valid
80005	9/5/2006	06090483	75-27-4	Bromodichloromethane Bromoform	N001	0.17	ug/L ug/L	IJ	<u>'</u>	0.17	1	valid
80005	9/5/2006	06090483	74-83-9	Bromomethane	N001	-	ug/L ug/L	U	F	0.19	1	valid
80005	9/5/2006	06090483	85-68-7	Butyl benzyl phthalate	N001		ug/L ug/L	IJ	<u>'</u>	5	1	valid
80005	9/5/2006	06090483	7440-43-9	Cadmium	0001	0.45	ug/L ug/L	II	' -	0.45		valid
80005	9/5/2006	06090483	75-15-0	Carbon Disulfide	N001		ug/L ug/L	U	<u>'</u>	0.45	1	valid
80005	9/5/2006	06090483	56-23-5	Carbon bisuilide Carbon tetrachloride	N001		ug/L ug/L	U	F	0.45	1	valid
80005	9/5/2006	06090483	108-90-7	Chlorobenzene	N001		ug/L ug/L	11	F	0.19		valid
80005	9/5/2006	06090483	124-48-1	Chlorodibromomethane	N001		ug/L ug/L	IJ	' -	0.17		valid
80005	9/5/2006	06090483	75-00-3	Chloroethane	N001		ug/L ug/L	IJ	' -	0.41		valid
80005	9/5/2006	06090483	67-66-3	Chloroform	N001		ug/L ug/L	U	F	0.41	1	valid
80005	9/5/2006	06090483	74-87-3	Chloromethane	N001		ug/L ug/L	IJ	- -	0.16		valid
80005	9/5/2006	06090483	218-01-9		N001		ug/L ug/L	U	- -	1		valid
80005		06090483	156-59-2	Chrysene	N001		Ü	U	F	0.15		
80005 80005	9/5/2006		7440-50-8	cis-1,2-Dichloroethene	0001		ug/L	U	F	0.15 4.5		valid valid
	9/5/2006	06090483 06090483		Copper Dibonz(a h)anthracena			ug/L	IJ	<u>'</u>	1.4		
80005	9/5/2006	UUU9U403	53-70-3	Dibenz(a,h)anthracene	N001	1.4	ug/L	U	ĮF.	11.4	<u> </u>	valid

Appendix A: Analytical Re	suits for water sail	LAB	C100	T	T					ı		
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID	DECILIT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
80005	9/5/2006	06090483	84-66-2	Diethyl phthalate	N001	5	ug/L	II	F	5	IAINII	valid
80005	9/5/2006	06090483	131-11-3	Dimethyl phthalate	N001		ug/L	IJ	F	5		valid
80005	9/5/2006	06090483	84-74-2	Di-n-butyl phthalate	N001	5	ug/L	IJ	F	5		valid
80005	9/5/2006	06090483	206-44-0	Fluoranthene	N001	5	ug/L	U	F	5		valid
80005	9/5/2006	06090483	86-73-7	Fluorene	N001	1	ug/L	IJ	F	1		valid
80005	9/5/2006	06090483	118-74-1	Hexachlorobenzene	N001	2.1	ug/L	U	F	2.1		valid
80005	9/5/2006	06090483	87-68-3	Hexachlorobutadiene	N001	0.12	ug/L	U	F	0.12		valid
80005	9/5/2006	06090483	77-47-4	Hexachlorocyclopentadiene	N001	1.5	ug/L	U	F	1.5		valid
80005	9/5/2006	06090483	193-39-5	Indeno(1,2,3-cd)pyrene	N001	1.5	ug/L	U	F	1.5		valid
80005	9/5/2006	06090483	78-59-1	Isophorone	N001		ug/L	U	F	1.5		valid
80005	9/5/2006	06090483	7439-92-1	Lead	0001	2.6	ug/L	U	F	2.6		valid
80005	9/5/2006	06090483	M&P XYLENE	m,p-Xylene	N001	0.34	ug/L	U	F	0.34		valid
80005	9/5/2006	06090483	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		valid
80005	9/5/2006	06090483	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		valid
80005	9/5/2006	06090483	7440-02-0	Nickel	0001	7.8	ug/L	U	F	7.8		valid
80005	9/5/2006	06090483	55-18-5	N-Nitrosodiethylamine	N001	1.1	ug/L	U	F	1.1		valid
80005	9/5/2006	06090483	62-75-9	N-Nitrosodimethylamine	N001	1.6	ug/L	U	F	1.6		valid
80005	9/5/2006	06090483	621-64-7	N-Nitrosodi-n-propylamine	N001		ug/L	U	F	5		valid
80005	9/5/2006	06090483	86-30-6	N-Nitrosodiphenylamine	N001	0.44	ug/L	U	F	0.44		valid
80005	9/5/2006	06090483	930-55-2	N-Nitrosopyrrolidine	N001	0.8	ug/L	U	F	0.8		valid
80005	9/5/2006	06090483	95-47-6	o-Xylene	N001	0.19	ug/L	U	F	0.19		valid
80005	9/5/2006	06090483	56-38-2	Parathion, ethyl	N001	2	ug/L	U	F	2		valid
80005	9/5/2006	06090483	608-93-5	Pentachlorobenzene	N001	2	ug/L	U	F	2		valid
80005	9/5/2006	06090483	87-86-5	Pentachlorophenol	N001	20	ug/L	U	F	20		valid
80005	9/5/2006	06090483	85-01-8	Phenanthrene	N001	1	ug/L	U	F	1		valid
80005	9/5/2006	06090483	108-95-2	Phenol	N001	1.4	ug/L	U	F	1.4		valid
80005	9/5/2006	06090483	129-00-0	Pyrene	N001	0.37	ug/L	U	F	0.37		valid
80005	9/5/2006	06090483	7440-22-4	Silver	0001	2.8	ug/L	U	F	2.8		valid
80005	9/5/2006	06090483	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		valid
80005	9/5/2006	06090483	127-18-4	Tetrachloroethene	N001		ug/L	U	F	0.2		valid
80005	9/5/2006	06090483	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		valid
80005	9/5/2006	06090483	100-41-4	Total Xylene	N001	0.16	ug/L	U	F	0.16		valid
80005	9/5/2006	06090483	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid
80005	9/5/2006	06090483	79-01-6	Trichloroethene	N001		ug/L	U	F	0.16		valid
80005	9/5/2006	06090483	75-01-4	Vinyl chloride	N001		ug/L	U	F	0.17		valid
80005	9/5/2006	06090483	7440-66-6	Zinc	0001		ug/L	В	F	4.5		U
80105	8/31/2006	06080481	71-55-6	1,1,1-Trichloroethane	N001		ug/L	U	F	0.16		valid
80105	8/31/2006	06080481	71-55-6	1,1,1-Trichloroethane	N002		ug/L	U	D	0.16		valid
80105	8/31/2006	06080481	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.2	ug/L	U	F	0.2		valid
80105	8/31/2006	06080481	79-34-5	1,1,2,2-Tetrachloroethane	N002	0.2	ug/L	U	D	0.2		valid
80105	8/31/2006	06080481	79-00-5	1,1,2-Trichloroethane	N001	0.32	ug/L	U	F	0.32		valid
80105	8/31/2006	06080481	79-00-5	1,1,2-Trichloroethane	N002	0.32	ug/L	U	D	0.32		valid
80105	8/31/2006	06080481	75-34-3	1,1-Dichloroethane	N001		ug/L	U	F	0.16		valid
80105	8/31/2006	06080481	75-34-3	1,1-Dichloroethane	N002		ug/L	U	D	0.16		valid
80105	8/31/2006	06080481	75-35-4	1,1-Dichloroethene	N001	0.14	ug/L	U	F	0.14		valid
80105	8/31/2006	06080481	75-35-4	1,1-Dichloroethene	N002		ug/L	U	D	0.14		valid
80105	8/31/2006	06080481	95-94-3	1,2,4,5-Tetrachlorobenzene	N001		ug/L	U	F	2		valid
80105	8/31/2006	06080481	95-94-3	1,2,4,5-Tetrachlorobenzene	N002		ug/L	U	ט	2		valid
80105	8/31/2006	06080481	120-82-1	1,2,4-Trichlorobenzene	N001	0.32	ug/L	U	F	0.32		valid
80105	8/31/2006	06080481	120-82-1	1,2,4-Trichlorobenzene	N002	0.32	ug/L	U	D	0.32		valid
80105	8/31/2006	06080481	96-12-8	1,2-Dibromo-3-chloropropane	N001		ug/L	U	F	1.5		valid
80105	8/31/2006	06080481	96-12-8	1,2-Dibromo-3-chloropropane	N002		ug/L	U	ט	1.5		valid
80105	8/31/2006	06080481	106-93-4	1,2-Dibromoethane	N001		ug/L	U	F	0.18		valid
80105	8/31/2006	06080481	106-93-4	1,2-Dibromoethane	N002		ug/L	U	D	0.18		valid
80105	8/31/2006	06080481	95-50-1	1,2-Dichlorobenzene	N001		ug/L	U	F	0.13		valid
80105	8/31/2006	06080481	95-50-1	1,2-Dichlorobenzene	N002	0.13	ug/L	U	טן	0.13]	valid

		LAB										
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	_
LOCATION_CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID		UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
80105	8/31/2006	06080481	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		valid
80105	8/31/2006	06080481	107-06-2	1,2-Dichloroethane	N002	0.13	ug/L	U	D	0.13		valid
80105	8/31/2006	06080481	78-87-5	1,2-Dichloropropane	N001	0.13	ug/L	U	F	0.13		valid
80105	8/31/2006	06080481	78-87-5	1,2-Dichloropropane	N002	0.13	ug/L	U	D	0.13		valid
80105	8/31/2006	06080481	122-66-7	1,2-Diphenylhydrazine	N001	0.64	ug/L	U	F	0.64		valid
80105	8/31/2006	06080481	122-66-7	1,2-Diphenylhydrazine	N002	0.64	ug/L	U	D	0.64		valid
80105	8/31/2006	06080481	541-73-1	1,3-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid
80105	8/31/2006	06080481	541-73-1	1,3-Dichlorobenzene	N002	0.16	ug/L	U	D	0.16		valid
80105	8/31/2006	06080481	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid
80105	8/31/2006	06080481	106-46-7	1,4-Dichlorobenzene	N002	0.16	ug/L	U	D	0.16		valid
80105	8/31/2006	06080481	105-67-9	2, 4-Dimethylphenol	N001	0.57	ug/L	U	F	0.57		valid
80105	8/31/2006	06080481	105-67-9	2, 4-Dimethylphenol	N002	0.57	ug/L	U	D	0.57		valid
80105	8/31/2006	06080481	88-06-2	2,4,6-Trichlorophenol	N001	5	ug/L	U	F	5		valid
80105	8/31/2006	06080481	88-06-2	2,4,6-Trichlorophenol	N002	5	ug/L	U	D	5		valid
80105	8/31/2006	06080481	120-83-2	2,4-Dichlorophenol	N001	1.3	ug/L	U	F	1.3		valid
80105	8/31/2006	06080481	120-83-2	2,4-Dichlorophenol	N002	1.3	ug/L	U	D	1.3		valid
80105	8/31/2006	06080481	51-28-5	2,4-Dinitrophenol	N001	20	ug/L	U	F	20		valid
80105	8/31/2006	06080481	51-28-5	2,4-Dinitrophenol	N002	20	ug/L	U	D	20		valid
80105	8/31/2006	06080481	121-14-2	2,4-Dinitrotoluene	N001	5	ug/L	U	F	5		valid
80105	8/31/2006	06080481	121-14-2	2,4-Dinitrotoluene	N002	5	ug/L	U	D	5		valid
80105	8/31/2006	06080481	606-20-2	2,6-Dinitrotoluene	N001	5	ug/L	U	F	5		valid
80105	8/31/2006	06080481	606-20-2	2,6-Dinitrotoluene	N002	5	ug/L	U	D	5		valid
80105	8/31/2006	06080481	78-93-3	2-Butanone	N001	1.8	ug/L	U	F	1.8		valid
80105	8/31/2006	06080481	78-93-3	2-Butanone	N002	1.8	ug/L	U	D	1.8		valid
80105	8/31/2006	06080481	91-58-7	2-Chloronaphthalene	N001	1.7	ug/L	U	F	1.7		valid
80105	8/31/2006	06080481	91-58-7	2-Chloronaphthalene	N002	1.7	ug/L	U	D	1.7		valid
80105	8/31/2006	06080481	95-57-8	2-Chlorophenol	N001	0.38	ug/L	U	F	0.38		valid
80105	8/31/2006	06080481	95-57-8	2-Chlorophenol	N002	0.38	ug/L	U	D	0.38		valid
80105	8/31/2006	06080481	95-48-7	2-Methylphenol	N001	1.4	ug/L	U	F	1.4		valid
80105	8/31/2006	06080481	95-48-7	2-Methylphenol	N002	1.4	ug/L	U	D	1.4		valid
80105	8/31/2006	06080481	91-94-1	3,3'-Dichlorobenzidine	N001	2	ug/L	U	F	2		valid
80105	8/31/2006	06080481	91-94-1	3,3'-Dichlorobenzidine	N002	2	ug/L	U	D	2		valid
80105	8/31/2006	06080481	534-52-1	4,6-Dinitro-2-methyl phenol	N001	20	ug/L	U	F	20		valid
80105	8/31/2006	06080481	534-52-1	4,6-Dinitro-2-methyl phenol	N002	20	ug/L	U	D	20		valid
80105	8/31/2006	06080481	59-50-7	4-Chloro-3-methylphenol	N001	5	ug/L	U	F	5		valid
80105	8/31/2006	06080481	59-50-7	4-Chloro-3-methylphenol	N002	5	ug/L	U	D	5		valid
80105	8/31/2006	06080481	108-10-1	4-Methyl-2-Pentanone	N001	0.49	ug/L	U	F	0.49		valid
80105	8/31/2006	06080481	108-10-1	4-Methyl-2-Pentanone	N002	0.49	ug/L	U	D	0.49		valid
80105	8/31/2006	06080481	100-02-7	4-Nitrophenol	N001	1.7	ug/L	U	F	1.7		valid
80105	8/31/2006	06080481	100-02-7	4-Nitrophenol	N002	1.7	ug/L	U	D	1.7		valid
80105	8/31/2006	06080481	83-32-9	Acenaphthene	N001	1.7	ug/L	U	F	1.7		valid
80105	8/31/2006	06080481	83-32-9	Acenaphthene	N002	1.7	ug/L	U	D	1.7		valid
80105	8/31/2006	06080481	208-96-8	Acenaphthylene	N001	1.8	ug/L	Ü	F	1.8		valid
80105	8/31/2006	06080481	208-96-8	Acenaphthylene	N002	1.8	ug/L	U	D	1.8		valid
80105	8/31/2006	06080481	67-64-1	Acetone	N001	1.9	ug/L	U	F	1.9		valid
80105	8/31/2006	06080481	67-64-1	Acetone	N002	1.9	ug/L	U	D	1.9		valid
80105	8/31/2006	06080481	107-02-8	Acrolein	N001	2.8	ug/L	Ū	F	2.8		valid
80105	8/31/2006	06080481	107-02-8	Acrolein	N002	2.8	ug/L	U	D	2.8		valid
80105	8/31/2006	06080481	107-13-1	Acrylonitrile	N001	1.4	ug/L	U	F	1.4		valid
80105	8/31/2006	06080481	107-13-1	Acrylonitrile	N002	1.4	ug/L	U	D	1.4		valid
80105	8/31/2006	06080481	7429-90-5	Aluminum	0001	27	ug/L	В	F	18		valid
80105	8/31/2006	06080481	7429-90-5	Aluminum	0001	29	ug/L	В	D	18		valid
80105	8/31/2006	06080481	120-12-7	Anthracene	N001	1.9		U	F	1.9		valid
80105 80105	8/31/2006	06080481	120-12-7	Anthracene	N001	1.9	ug/L ug/L	U	D D	1.9	1	valid
JU 1 UJ	0/31/2000			Benz(a)anthracene	N002 N001	1.7	ug/L ug/L	U	-	1.7	1	valid
80105	8/31/2006	06080481	56-55-3									

Appendix A: Analytical Re	suits for water San		C100		1	1			T	ī		T 1
		LAB REQUISITION						LAD	CAMPLE	DETECTION	LINCED	DATA VALIDATION
LOCATION CODE	DATE CAMPLED		040	ANIALVEE	CAMPI E ID	DECLUT	LINUTC	LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION_CODE 80105	DATE SAMPLED	NUMBER 06080481	CAS 71-43-2	ANALYTE	N001	0.16	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
80105	8/31/2006	06080481	71-43-2	Benzene	N001		ug/L	U	r D	0.16 0.16		valid
80105	8/31/2006 8/31/2006	06080481	92-87-5	Benzene Benzidine	N002	0.16 50	ug/L ug/L	IJ	<u>г</u>	50		valid valid
80105	8/31/2006	06080481	92-87-5	Benzidine	N001		ug/L ug/L	U	Г	50		valid
80105	8/31/2006	06080481	50-32-8		N002		ug/L ug/L	IJ	D	1.3		valid
80105	8/31/2006	06080481	50-32-8	Benzo(a)pyrene Benzo(a)pyrene	N001	1.3	ug/L ug/L	U	D	1.3		valid
80105	8/31/2006	06080481	205-99-2	Benzo(b)fluoranthene	N002	0.39	ug/L ug/L	II	E	0.39		valid
80105	8/31/2006	06080481	205-99-2	Benzo(b)fluoranthene	N001	0.39	ug/L ug/L	U	D	0.39		valid
80105	8/31/2006	06080481	191-24-2	Benzo(g,h,i)Perylene	N002	0.39	ug/L ug/L	11	D	0.39		valid
80105	8/31/2006	06080481	191-24-2	Benzo(g,h,i)Perylene	N001	1	ug/L ug/L	11	D	1		valid
80105	8/31/2006	06080481	207-08-9	Benzo(k)fluoranthene	N002	0.46	ug/L	11	E	0.46		valid
80105	8/31/2006	06080481	207-08-9	Benzo(k)fluoranthene	N001		ug/L ug/L	IJ	D	0.46		valid
80105	8/31/2006	06080481	111-44-4	Bis(2-chloroethyl) ether	N002	3.9	ug/L ug/L	II	E	3.9		valid
80105	8/31/2006	06080481	111-44-4	Bis(2-chloroethyl) ether	N001		ug/L ug/L	11	D	3.9		valid
80105	8/31/2006	06080481	108-60-1	Bis(2-chloroisopropyl) ether	N002		ug/L ug/L	II	E	0.43		valid
80105	8/31/2006	06080481	108-60-1	Bis(2-chloroisopropyl) ether	N001		ug/L ug/L	II	D.	0.43		valid
80105	8/31/2006	06080481	117-81-7	Bis(2-ethylhexyl) phthalate	N002 N001		ug/L ug/L	U	<u> </u>	5		valid
80105	8/31/2006	06080481	117-81-7	Bis(2-ethylhexyl) phthalate	N001		ug/L ug/L	U II	n D	5		valid
80105	8/31/2006	06080481	75-27-4	Bromodichloromethane	N002		ug/L ug/L	IJ	E	0.17		valid
80105	8/31/2006	06080481	75-27-4	Bromodichloromethane	N001		ug/L ug/L	II	D	0.17		valid
80105	8/31/2006	06080481	75-27-4	Bromoform	N002		ug/L ug/L	IJ	<u>г</u>	0.17		valid
80105	8/31/2006	06080481	75-25-2	Bromoform	N001		ug/L ug/L	II	r D	0.19		valid
80105	8/31/2006	06080481	74-83-9		N002	0.19	ug/L ug/L	IJ	<u>г</u>	0.19		valid
80105	8/31/2006	06080481	74-83-9	Bromomethane Bromomethane	N001	0.21	ug/L ug/L	II	Г	0.21		valid
80105	8/31/2006	06080481	85-68-7	Butyl benzyl phthalate	N002	5	ug/L ug/L	IJ	<u>г</u>	5		valid
80105	8/31/2006	06080481	85-68-7	Butyl benzyl phthalate	N001	5	ug/L ug/L	II	D.	5		valid
80105	8/31/2006	06080481	7440-43-9	Cadmium	0001	0.45	ug/L ug/L	II	E	0.45		valid
80105	8/31/2006	06080481	7440-43-9	Cadmium	0001	0.45	ug/L ug/L	II	D	0.45		valid
80105	8/31/2006	06080481	75-15-0	Carbon Disulfide	N001		ug/L ug/L	IJ	E	0.45		valid
80105	8/31/2006	06080481	75-15-0	Carbon Disulfide	N001	-	ug/L	U	D	0.45		valid
80105	8/31/2006	06080481	56-23-5	Carbon tetrachloride	N002	0.43	ug/L	11	E	0.43		valid
80105	8/31/2006	06080481	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	II	י	0.19		valid
80105	8/31/2006	06080481	108-90-7	Chlorobenzene	N002	0.13	ug/L	II	E	0.17		valid
80105	8/31/2006	06080481	108-90-7	Chlorobenzene	N001		ug/L	IJ	י	0.17		valid
80105	8/31/2006	06080481	124-48-1	Chlorodibromomethane	N002		ug/L	IJ	F	0.17		valid
80105	8/31/2006	06080481	124-48-1	Chlorodibromomethane	N002		ug/L	U	D.	0.17		valid
80105	8/31/2006	06080481	75-00-3	Chloroethane	N002		ug/L	IJ	E	0.41		valid
80105	8/31/2006	06080481	75-00-3	Chloroethane	N001	-	ug/L	U	D	0.41		valid
80105	8/31/2006	06080481	67-66-3	Chloroform	N002	0.41	ug/L	11	F	0.16		valid
80105	8/31/2006	06080481	67-66-3	Chloroform	N002	0.16	ug/L	IJ	D.	0.16		valid
80105	8/31/2006	06080481	74-87-3	Chloromethane	N001	0.3	ug/L	II	F	0.3		valid
80105	8/31/2006	06080481	74-87-3	Chloromethane	N002	0.3	ug/L	IJ	,	0.3		valid
80105	8/31/2006	06080481	218-01-9	Chrysene	N002		ug/L	II	F	1		valid
80105	8/31/2006	06080481	218-01-9	Chrysene	N002		ug/L	IJ	D.	1		valid
80105	8/31/2006	06080481	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	II	F	0.15		valid
80105	8/31/2006	06080481	156-59-2	cis-1,2-Dichloroethene	N002		ug/L	U	D.	0.15		valid
80105	8/31/2006	06080481	7440-50-8	Copper	0001		ug/L	II	F	4.5		valid
80105	8/31/2006	06080481	7440-50-8	Copper	0002		ug/L	II	D	4.5		valid
80105	8/31/2006	06080481	53-70-3	Dibenz(a,h)anthracene	N001		ug/L	IJ	F	1.4		valid
80105	8/31/2006	06080481	53-70-3	Dibenz(a,h)anthracene	N002		ug/L	IJ	D.	1.4		valid
80105	8/31/2006	06080481	84-66-2	Diethyl phthalate	N002		ug/L	U	F	5		valid
80105	8/31/2006	06080481	84-66-2	Diethyl phthalate	N001		ug/L	IJ	D	5		valid
80105	8/31/2006	06080481	131-11-3	Dimethyl phthalate	N002		ug/L ug/L	U	F	5		valid
80105	8/31/2006	06080481	131-11-3	Dimethyl phthalate	N001		ug/L ug/L	U	D	5		valid
80105	8/31/2006	06080481	84-74-2	Di-n-butyl phthalate	N002		ug/L ug/L	U	F	5		valid
80105	8/31/2006	06080481	84-74-2	Di-n-butyl phthalate	N001	-	ug/L ug/L	IJ	D.	5		valid
00100	0/31/2000	00000401	04-14-2	Diffirmutyi pritrialate	11002	J	ug/L	U	טן	J	1	valiu

Appendix A: Analytical Re	suits for water San		CYUO		1	1	1		T	ī		T 1
		LAB REQUISITION						LAD	CAMPLE	DETECTION	LINCED	DATA VALIDATION
LOCATION CODE	DATE CAMPLED		040	ANIALVEE	CAMPI E ID	DECLUT	LIMITO	LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION_CODE	DATE SAMPLED	NUMBER	CAS 206-44-0	ANALYTE	SAMPLE ID		UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
80105 80105	8/31/2006	06080481 06080481	206-44-0	Fluoranthene	N001 N002	5	ug/L	U	r D	5		valid valid
80105	8/31/2006 8/31/2006	06080481	86-73-7	Fluoranthene	N002 N001	3	ug/L	IJ	<u>г</u>	5		valid
80105	8/31/2006	06080481	86-73-7	Fluorene	N001	1	ug/L	U	D D	1		valid
80105	8/31/2006	06080481	118-74-1	Fluorene Hexachlorobenzene	N002	2.1	ug/L ug/L	IJ	D	2.1		valid
80105	8/31/2006	06080481	118-74-1	Hexachlorobenzene	N001	2.1	ug/L ug/L	U	D	2.1		valid
80105	8/31/2006	06080481	87-68-3	Hexachlorobutadiene	N002	0.12	ug/L ug/L	II	E	0.12		valid
80105	8/31/2006	06080481	87-68-3	Hexachlorobutadiene	N001	0.12	ug/L ug/L	U	D	0.12		valid
80105	8/31/2006	06080481	77-47-4	Hexachlorocyclopentadiene	N002 N001	1.5	ug/L ug/L	II	D	1.5		valid
80105	8/31/2006	06080481	77-47-4	Hexachlorocyclopentadiene	N001		ug/L ug/L	IJ	D	1.500		valid
80105	8/31/2006	06080481	193-39-5	Indeno(1,2,3-cd)pyrene	N002	1.5	ug/L	11	E	1.5		valid
80105	8/31/2006	06080481	193-39-5	Indeno(1,2,3-cd)pyrene	N001		ug/L ug/L	IJ	D	1.500		valid
80105	8/31/2006	06080481	78-59-1	Isophorone	N002	1.5	ug/L ug/L	II	E	1.5		valid
80105	8/31/2006	06080481	78-59-1	Isophorone	N001		ug/L ug/L	11	D	1.5		valid
80105	8/31/2006	06080481	7439-92-1	Lead	0001		ug/L ug/L	II	E	2.600		valid
80105	8/31/2006	06080481	7439-92-1	Lead	0001		ug/L	II	י	2.600		valid
80105	8/31/2006	06080481	M&P XYLENE	m,p-Xylene	N001		ug/L ug/L	U	E	0.340		valid
80105	8/31/2006	06080481	M&P XYLENE	m,p-Xylene m,p-Xylene	N001		ug/L ug/L		n D	0.340		valid
80105	8/31/2006	06080481	75-09-2	Methylene chloride	N002		ug/L ug/L	U	E	0.320		valid
80105	8/31/2006	06080481	75-09-2	Methylene chloride	N001		ug/L ug/L	II	D	0.320		valid
80105	8/31/2006	06080481	91-20-3	Naphthalene	N002		ug/L ug/L	IJ	E	0.220		valid
80105	8/31/2006	06080481	91-20-3	Naphthalene	N001		ug/L ug/L	II	r D	0.220		valid
80105	8/31/2006	06080481	7440-02-0	Nickel	0001	7.8	ug/L ug/L	IJ	E	7.800		valid
80105	8/31/2006	06080481	7440-02-0	Nickel	0001	7.8	ug/L ug/L	II	D .	7.800		valid
80105	8/31/2006	06080481	55-18-5		N001	1.1		IJ	<u>г</u>	1.100		valid
80105	8/31/2006	06080481	55-18-5	N-Nitrosodiethylamine N-Nitrosodiethylamine	N001	1.1	ug/L ug/L	II	D.	1.100		valid
80105	8/31/2006	06080481	62-75-9	N-Nitrosodimethylamine	N002		ug/L ug/L	II	E	1.600		valid
80105	8/31/2006	06080481	62-75-9	N-Nitrosodimethylamine	N001	1.6	ug/L ug/L	II	D.	1.600		valid
80105	8/31/2006	06080481	621-64-7	N-Nitrosodi-n-propylamine	N002		ug/L ug/L	IJ	E	5.000		valid
80105	8/31/2006	06080481	621-64-7	N-Nitrosodi-n-propylamine	N001		ug/L	U	D	5.000		valid
80105	8/31/2006	06080481	86-30-6	N-Nitrosodiphenylamine	N002	0.44	ug/L ug/L	11	E	0.440		valid
80105	8/31/2006	06080481	86-30-6	N-Nitrosodiphenylamine	N002	0.44	ug/L	II	י	0.440		valid
80105	8/31/2006	06080481	930-55-2	N-Nitrosopyrrolidine	N002	0.44	ug/L	IJ	E	0.800		valid
80105	8/31/2006	06080481	930-55-2	N-Nitrosopyrrolidine	N002		ug/L	IJ	י	0.800		valid
80105	8/31/2006	06080481	95-47-6	o-Xylene	N002		ug/L	IJ	F	0.19		valid
80105	8/31/2006	06080481	95-47-6	o-Xylene	N002		ug/L	U	D	0.19		valid
80105	8/31/2006	06080481	56-38-2	Parathion, ethyl	N001	-	ug/L	IJ	F	2		valid
80105	8/31/2006	06080481	56-38-2	Parathion, ethyl	N002		ug/L	U	D.	2		valid
80105	8/31/2006	06080481	608-93-5	Pentachlorobenzene	N002	2	ug/L	II	F	2.000		valid
80105	8/31/2006	06080481	608-93-5	Pentachlorobenzene	N002	2	ug/L	IJ	D.	2.000		valid
80105	8/31/2006	06080481	87-86-5	Pentachlorophenol	N001	20	ug/L	IJ	F	20		valid
80105	8/31/2006	06080481	87-86-5	Pentachlorophenol	N002	20	ug/L	IJ	n D	20		valid
80105	8/31/2006	06080481	85-01-8	Phenanthrene	N002		ug/L	U	F	1		valid
80105	8/31/2006	06080481	85-01-8	Phenanthrene	N002		ug/L	IJ	D.	1		valid
80105	8/31/2006	06080481	108-95-2	Phenol	N001	1.4	ug/L	II	F	1.4		valid
80105	8/31/2006	06080481	108-95-2	Phenol	N002		ug/L	U	D.	1.400		valid
80105	8/31/2006	06080481	129-00-0	Pyrene	N002		ug/L	U	F	0.370		valid
80105	8/31/2006	06080481	129-00-0	Pyrene	N002		ug/L	U	D.	0.37		valid
80105	8/31/2006	06080481	7440-22-4	Silver	0001		ug/L	IJ	F	2.8		valid
80105	8/31/2006	06080481	7440-22-4	Silver	0001		ug/L	IJ	D.	2.8		valid
80105	8/31/2006	06080481	100-42-5	Styrene	N001		ug/L	U	F	0.170		valid
80105	8/31/2006	06080481	100-42-5	Styrene	N002		ug/L	IJ	D	0.17		valid
80105	8/31/2006	06080481	127-18-4	Tetrachloroethene	N002		ug/L ug/L	U	F	0.17		valid
80105	8/31/2006	06080481	127-18-4	Tetrachloroethene	N001		ug/L ug/L	U	D	0.2		valid
80105	8/31/2006	06080481	108-88-3	Toluene	N002		ug/L ug/L	J	F	0.17		valid
80105	8/31/2006	06080481	108-88-3	Toluene	N001		ug/L ug/L	ı	D.	0.17		valid
00100	0/31/2000	00000401	100-00-3	TOTACTIC	INUUZ	0.00	ug/L	J	טן	0.17	1	valiu

		LAB										
LOCATION CODE	DATE SAMPLED	REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	DECIIIT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER- TAINTY	DATA VALIDATION QUALIFIERS
80105	8/31/2006	06080481	100-41-4	Total Xylene	N001	0.16	ug/L	II	F	0.160	IAINII	valid
80105	8/31/2006	06080481	100-41-4	Total Xylene	N002		ug/L	II	D	0.160		valid
80105	8/31/2006	06080481	156-60-5	trans-1,2-Dichloroethene	N001		ug/L	U	F	0.15		valid
80105	8/31/2006	06080481	156-60-5	trans-1,2-Dichloroethene	N002		ug/L	IJ	D.	0.15		valid
80105	8/31/2006	06080481	79-01-6	Trichloroethene	N001		ug/L	U	F	0.160		valid
80105	8/31/2006	06080481	79-01-6	Trichloroethene	N002		ug/L	U	D	0.160		valid
80105	8/31/2006	06080481	75-01-4	Vinyl chloride	N001		ug/L	U	F	0.170		valid
80105	8/31/2006	06080481	75-01-4	Vinyl chloride	N002		ug/L	U	D	0.170		valid
80105	8/31/2006	06080481	7440-66-6	Zinc	0001	4.5	ug/L	U	F	4.5		valid
80105	8/31/2006	06080481	7440-66-6	Zinc	0002	4.5	ug/L	U	D	4.500		valid
80205	9/5/2006	06090483	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		valid
80205	9/5/2006	06090483	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.2	ug/L	U	F	0.2		valid
80205	9/5/2006	06090483	79-00-5	1,1,2-Trichloroethane	N001	0.32	ug/L	U	F	0.320		valid
80205	9/5/2006	06090483	75-34-3	1,1-Dichloroethane	N001	0.16	ug/L	U	F	0.16		valid
80205	9/5/2006	06090483	75-35-4	1,1-Dichloroethene	N001	0.14	ug/L	U	F	0.140		valid
80205	9/5/2006	06090483	95-94-3	1,2,4,5-Tetrachlorobenzene	N001	2	ug/L	U	F	2		valid
80205	9/5/2006	06090483	120-82-1	1,2,4-Trichlorobenzene	N001	0.32	ug/L	U	F	0.320		valid
80205	9/5/2006	06090483	96-12-8	1,2-Dibromo-3-chloropropane	N001		ug/L	U	F	1.5		valid
80205	9/5/2006	06090483	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.180		valid
80205	9/5/2006	06090483	95-50-1	1,2-Dichlorobenzene	N001	0.13	ug/L	U	F	0.130		valid
80205	9/5/2006	06090483	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		valid
80205	9/5/2006	06090483	78-87-5	1,2-Dichloropropane	N001	0.13	ug/L	U	F	0.130		valid
80205	9/5/2006	06090483	122-66-7	1,2-Diphenylhydrazine	N001	0.64	ug/L	U	F	0.64		valid
80205	9/5/2006	06090483	541-73-1	1,3-Dichlorobenzene	N001	0.16	ug/L	U	F	0.160		valid
80205	9/5/2006	06090483	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid
80205	9/5/2006	06090483	105-67-9	2, 4-Dimethylphenol	N001		ug/L	U	F	0.57		valid
80205	9/5/2006	06090483	88-06-2	2,4,6-Trichlorophenol	N001	5	ug/L	U	F	5		valid
80205	9/5/2006	06090483	120-83-2	2,4-Dichlorophenol	N001	1.3	ug/L	U	F	1.3		valid
80205	9/5/2006	06090483	51-28-5	2,4-Dinitrophenol	N001	20	ug/L	U	F	20		valid
80205	9/5/2006	06090483	121-14-2	2,4-Dinitrotoluene	N001	5	ug/L	U	F	5		valid
80205	9/5/2006	06090483	606-20-2	2,6-Dinitrotoluene	N001	5	ug/L	U	F	5		valid
80205	9/5/2006	06090483	78-93-3	2-Butanone	N001	1.8	ug/L	U	F	1.8		valid
80205	9/5/2006	06090483	91-58-7	2-Chloronaphthalene	N001	1.7	ug/L	U	F	1.700		valid
80205	9/5/2006	06090483	95-57-8	2-Chlorophenol	N001	0.38	ug/L	U	F	0.38		valid
80205	9/5/2006	06090483	95-48-7	2-Methylphenol	N001	1.4	ug/L	U	F	1.4		valid
80205	9/5/2006	06090483	91-94-1	3,3'-Dichlorobenzidine	N001	2	ug/L	U	F	2		valid
80205	9/5/2006	06090483	534-52-1	4,6-Dinitro-2-methyl phenol	N001	20	ug/L	U	F	20		valid
80205	9/5/2006	06090483	59-50-7	4-Chloro-3-methylphenol	N001	5	ug/L	U	F	5		valid
80205	9/5/2006	06090483	108-10-1	4-Methyl-2-Pentanone	N001		ug/L	U	F	0.49		valid
80205	9/5/2006	06090483	100-02-7	4-Nitrophenol	N001		ug/L	U	F	1.7		valid
80205	9/5/2006	06090483	83-32-9	Acenaphthene	N001	1.7	ug/L	U	F	1.7		valid
80205	9/5/2006	06090483	208-96-8	Acenaphthylene	N001		ug/L	U	F	1.8		valid
80205	9/5/2006	06090483	67-64-1	Acetone	N001		ug/L		F	1.9		U
80205	9/5/2006	06090483	107-02-8	Acrolein	N001		ug/L	U	F	2.8		valid
80205	9/5/2006	06090483	107-13-1	Acrylonitrile	N001		ug/L	U	F	1.4		valid
80205	9/5/2006	06090483	7429-90-5	Aluminum	0001	18	ug/L	U	F	18		valid
80205	9/5/2006	06090483	120-12-7	Anthracene	N001		ug/L	U	F	1.9		valid
80205	9/5/2006	06090483	56-55-3	Benz(a)anthracene	N001	1.7	ug/L	U	F	1.7		valid
80205	9/5/2006	06090483	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		valid
80205	9/5/2006	06090483	92-87-5	Benzidine	N001	50	ug/L	U	F	50		valid
80205	9/5/2006	06090483	50-32-8	Benzo(a)pyrene	N001		ug/L	U	F	1.300		valid
80205	9/5/2006	06090483	205-99-2	Benzo(b)fluoranthene	N001	0.39	ug/L	U	F	0.39		valid
80205	9/5/2006	06090483	191-24-2	Benzo(g,h,i)Perylene	N001		ug/L	U	F	1		valid
80205	9/5/2006	06090483	207-08-9	Benzo(k)fluoranthene	N001	0.46	ug/L	U	F	0.46		valid
80205	9/5/2006	06090483	111-44-4	Bis(2-chloroethyl) ether	N001	3.9	ug/L	U	F	3.9		valid
80205	9/5/2006	06090483	108-60-1	Bis(2-chloroisopropyl) ether	N001	0.43	ug/L	U	F	0.430		valid

Appendix A: Analytical Re	- Vater San	LAB	1		1				1			
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
80205	9/5/2006	06090483	117-81-7	Bis(2-ethylhexyl) phthalate	N001	5	ug/L	U	F	5		valid
80205	9/5/2006	06090483	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.170		valid
80205	9/5/2006	06090483	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		valid
80205	9/5/2006	06090483	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		valid
80205	9/5/2006	06090483	85-68-7	Butyl benzyl phthalate	N001	5	ug/L	U	F	5		valid
80205	9/5/2006	06090483	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		valid
80205	9/5/2006	06090483	75-15-0	Carbon Disulfide	N001	0.45	ug/L	U	F	0.45		valid
80205	9/5/2006	06090483	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		valid
80205	9/5/2006	06090483	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		valid
80205	9/5/2006	06090483	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		valid
80205	9/5/2006	06090483	75-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		valid
80205	9/5/2006	06090483	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		valid
80205	9/5/2006	06090483	74-87-3	Chloromethane	N001		ug/L	U	F	0.300		valid
80205	9/5/2006	06090483	218-01-9	Chrysene	N001	1	ug/L	U	F	1		valid
80205	9/5/2006	06090483	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid
80205	9/5/2006	06090483	7440-50-8	Copper	0001	4.5	ug/L	U	F	4.5		valid
80205	9/5/2006	06090483	53-70-3	Dibenz(a,h)anthracene	N001	1.4	ug/L	U	F	1.4		valid
80205	9/5/2006	06090483	84-66-2	Diethyl phthalate	N001	5	ug/L	U	F	5		valid
80205	9/5/2006	06090483	131-11-3	Dimethyl phthalate	N001	5	ug/L	U	F	5		valid
80205	9/5/2006	06090483	84-74-2	Di-n-butyl phthalate	N001	5	ug/L	U	F	5		valid
80205	9/5/2006	06090483	206-44-0	Fluoranthene	N001	5	ug/L	U	F	5		valid
80205	9/5/2006	06090483	86-73-7	Fluorene	N001		ug/L	Ü	F	1		valid
80205	9/5/2006	06090483	118-74-1	Hexachlorobenzene	N001		ug/L	U	F	2.1		valid
80205	9/5/2006	06090483	87-68-3	Hexachlorobutadiene	N001		ug/L	U	F	0.12		valid
80205	9/5/2006	06090483	77-47-4	Hexachlorocyclopentadiene	N001		ug/L	U	F	1.500		valid
80205	9/5/2006	06090483	193-39-5	Indeno(1,2,3-cd)pyrene	N001		ug/L	Ü	F	1.5		valid
80205	9/5/2006	06090483	78-59-1	Isophorone	N001	1.5	ug/L	U	F	1.5		valid
80205	9/5/2006	06090483	7439-92-1	Lead	0001	2.6	ug/L	U	F	2.6		valid
80205	9/5/2006	06090483	M&P XYLENE	m,p-Xylene	N001	0.34	ug/L	U	F	0.34		valid
80205	9/5/2006	06090483	75-09-2	Methylene chloride	N001		ug/L	Ü	F	0.32		valid
80205	9/5/2006	06090483	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		valid
80205	9/5/2006	06090483	7440-02-0	Nickel	0001		ug/L	U	F	7.8		valid
80205	9/5/2006	06090483	55-18-5	N-Nitrosodiethylamine	N001	1.1	ug/L	U	F	1.1		valid
80205	9/5/2006	06090483	62-75-9	N-Nitrosodimethylamine	N001		ug/L	U	F	1.6		valid
80205	9/5/2006	06090483	621-64-7	N-Nitrosodi-n-propylamine	N001		ug/L	U	F	5		valid
80205	9/5/2006	06090483	86-30-6	N-Nitrosodiphenylamine	N001		ug/L	U	F	0.44		valid
80205	9/5/2006	06090483	930-55-2	N-Nitrosopyrrolidine	N001		ug/L	U	F	0.8		valid
80205	9/5/2006	06090483	95-47-6	o-Xylene	N001		ug/L	U	F	0.190		valid
80205	9/5/2006	06090483	56-38-2	Parathion, ethyl	N001		ug/L	Ü	F	2		valid
80205	9/5/2006	06090483	608-93-5	Pentachlorobenzene	N001	2	ug/L	U	F	2		valid
80205	9/5/2006	06090483	87-86-5	Pentachlorophenol	N001	20	ug/L	U	F	20		valid
80205	9/5/2006	06090483	85-01-8	Phenanthrene	N001	1	ug/L	U	F	1		valid
80205	9/5/2006	06090483	108-95-2	Phenol	N001	1.4	ug/L	U	F	1.400		valid
80205	9/5/2006	06090483	129-00-0	Pyrene	N001	0.37	ug/L	U	F	0.370		valid
80205	9/5/2006	06090483	7440-22-4	Silver	0001		ug/L	U	F	2.8		valid
80205	9/5/2006	06090483	100-42-5	Styrene	N001		ug/L	U	F	0.170		valid
80205	9/5/2006	06090483	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.200		valid
80205	9/5/2006	06090483	108-88-3	Toluene	N001		ug/L	U	F	0.170		valid
80205	9/5/2006	06090483	100-41-4	Total Xylene	N001		ug/L	U	F	0.16		valid
80205	9/5/2006	06090483	156-60-5	trans-1,2-Dichloroethene	N001		ug/L	U	F	0.150		valid
80205	9/5/2006	06090483	79-01-6	Trichloroethene	N001		ug/L	U	F	0.16		valid
80205	9/5/2006	06090483	75-01-4	Vinyl chloride	N001		ug/L	U	F	0.17	1	valid
80205	9/5/2006	06090483	7440-66-6	Zinc	0001	18	ug/L	B	F	4.5		U
891WEL	8/30/2006	06080481	71-55-6	1,1,1-Trichloroethane	N001		ug/L	J	F	0.32	 	valid
891WEL	8/30/2006	06080481	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.4	ug/L	U	F.	0.4	 	valid
891WEL	8/30/2006	06080481	79-00-5	1,1,2-Trichloroethane	N001	-	ug/L	U	F.	0.640		valid
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Appendix A: Analytical R	esults for Water San		CY06									
		LAB										
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION_CODE	DATE SAMPLED		CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
891WEL	8/30/2006	06080481	75-34-3	1,1-Dichloroethane	N001	0.53	ug/L	J	F	0.32		valid
891WEL	8/30/2006	06080481	75-35-4	1,1-Dichloroethene	N001	25	ug/L		F	0.28		valid
891WEL	8/30/2006	06080481	120-82-1	1,2,4-Trichlorobenzene	N001	0.64	ug/L	U	F	0.64		valid
891WEL	8/30/2006	06080481	96-12-8	1,2-Dibromo-3-chloropropane	N001	3	ug/L	U	F	3		valid
891WEL	8/30/2006	06080481	106-93-4	1,2-Dibromoethane	N001	0.36	ug/L	U	F	0.36		valid
891WEL	8/30/2006	06080481	95-50-1	1,2-Dichlorobenzene	N001	0.26	ug/L	U	F	0.26		valid
891WEL	8/30/2006	06080481	107-06-2	1,2-Dichloroethane	N001	0.26	ug/L	U	F	0.26		valid
891WEL	8/30/2006	06080481	78-87-5	1,2-Dichloropropane	N001	0.26	ug/L	U	F	0.26		valid
891WEL	8/30/2006	06080481	541-73-1	1,3-Dichlorobenzene	N001	0.32	ug/L	U	F	0.320		valid
891WEL	8/30/2006	06080481	106-46-7	1,4-Dichlorobenzene	N001	0.32	ug/L	U	F	0.32		valid
891WEL	8/30/2006	06080481	78-93-3	2-Butanone	N001	3.7	ug/L	U	F	3.7		valid
891WEL	8/30/2006	06080481	108-10-1	4-Methyl-2-Pentanone	N001	0.98	ug/L	U	F	0.98		valid
891WEL	8/30/2006	06080481	67-64-1	Acetone	N001	3.8	ug/L	U	F	3.8		valid
891WEL	8/30/2006	06080481	71-43-2	Benzene	N001	0.32	ug/L	U	F	0.32		valid
891WEL	8/30/2006	06080481	75-27-4	Bromodichloromethane	N001	0.34	ug/L	U	F	0.34		valid
891WEL	8/30/2006	06080481	75-25-2	Bromoform	N001	0.38	ug/L	U	F	0.380		valid
891WEL	8/30/2006	06080481	74-83-9	Bromomethane	N001	0.42	ug/L	U	F	0.42		valid
891WEL	8/30/2006	06080481	75-15-0	Carbon Disulfide	N001	0.9	ug/L	U	F	0.900		valid
891WEL	8/30/2006	06080481	56-23-5	Carbon tetrachloride	N001	3	ug/L		F	0.38		valid
891WEL	8/30/2006	06080481	108-90-7	Chlorobenzene	N001	0.34	ug/L	U	F	0.340		valid
891WEL	8/30/2006	06080481	124-48-1	Chlorodibromomethane	N001	0.34	ug/L	U	F	0.340		valid
891WEL	8/30/2006	06080481	75-00-3	Chloroethane	N001	0.82	ug/L	U	F	0.82		valid
891WEL	8/30/2006	06080481	67-66-3	Chloroform	N001	3.4	ug/L		F	0.320		valid
891WEL	8/30/2006	06080481	74-87-3	Chloromethane	N001	0.6	ug/L	U	F	0.6		valid
891WEL	8/30/2006	06080481	156-59-2	cis-1,2-Dichloroethene	N001	3.8	ug/L		F	0.3		valid
891WEL	8/30/2006	06080481	87-68-3	Hexachlorobutadiene	N001	0.24	ug/L	U	F	0.240		valid
891WEL	8/30/2006	06080481	75-09-2	Methylene chloride	N001	0.64	ug/L	U	F	0.640		valid
891WEL	8/30/2006	06080481	91-20-3	Naphthalene	N001	0.44	ug/L	U .	F	0.44		valid
891WEL	8/30/2006	06080481	100-42-5	Styrene	N001	0.34	ug/L	U	F	0.34		valid
891WEL	8/30/2006	06080481	127-18-4	Tetrachloroethene	N001	36	ug/L	0	F	0.400		valid
891WEL	8/30/2006	06080481	108-88-3	Toluene	N001	1.2	ug/L	1	E	0.34		valid
891WEL	8/30/2006	06080481	100-41-4	Total Xylene	N001	0.32	ug/L	U	E	0.320		valid
891WEL	8/30/2006	06080481	1330-20-7	Total Xylenes	N001	0.38	ug/L	П	F	0.38		valid
891WEL	8/30/2006	06080481	156-60-5	trans-1,2-Dichloroethene	N001	0.30	ug/L	U	E	0.3		valid
891WEL	8/30/2006	06080481	10061-02-6	trans-1,3-dichloropropene	N001	1.6	ug/L ug/L	11	F	1.600		valid
891WEL	8/30/2006	06080481	79-01-6	Trichloroethene	N001	240	ug/L ug/L	U	F	1.6		valid
891WEL	8/30/2006	06080481	75-01-4	Vinyl chloride	N001	0.34	ug/L ug/L	U	F	0.34		valid
GS05	_	06110577	7429-90-5	Aluminum	0001			U	r	68		valid
GS05 GS05	5/8/2006 5/8/2006	06110577	7429-90-5	Antimony	N001	68 4	ug/L ug/L	U	<u>r</u>	4		valid
GS05	5/8/2006	06110577	7440-38-2	Arsenic	N001	6	ug/L	U	F	6		valid
GS05	5/8/2006		7440-38-2			66.3		В	r	1		
GS05 GS05	5/8/2006	06110577 06110577	7440-39-3	Barium	N001 N001	1	ug/L	IJ	F	1		valid
GS05 GS05			7440-41-7	Beryllium	N001 N001	17.4	ug/L ug/L	B	F	10		valid valid
	5/8/2006	06110577		Boron		17.4		D II	F	10		
GS05	5/8/2006	06110577	7440-43-9	Chromium	0001	1.0	ug/L	B	F	1		valid
GS05	5/8/2006	06110577	7440-47-3	Chromium	N001	1.9	ug/L	I)	ir Ir	1	1	valid
GS05	5/8/2006	06110577	7440-50-8	Copper	0001	3 2 F	ug/L	Ŭ	r	3 2 F		valid
GS05	5/8/2006	06110577	7439-92-1	Lead	0001	2.5	ug/L	U	ir Ir	2.5	1	valid
GS05	5/8/2006	06110577	7439-96-5	Manganese	N001	129	ug/L	11	ir Ir	0.00	1	valid
GS05	5/8/2006	06110577	7439-97-6	Mercury	N001	0.06	ug/L	U	F	0.06		valid
GS05	5/8/2006	06110577	7440-02-0	Nickel	0001	1	ug/L	U	 	7		valid
GS05	5/8/2006	06110577	7782-49-2	Selenium	N001	6	ug/L	U	F	6		valid
GS05	5/8/2006	06110577	7440-22-4	Silver	0001	1	ug/L	U	F	1		valid
GS05	5/8/2006	06110577	7440-28-0	Thallium	N001	5	ug/L	U	 	5	0.05:-	valid
GS05	5/8/2006	06110577	U-234	Uranium-234	N001	0.262	pCi/L	H	F	0.0371	0.0519	valid
GS05	5/8/2006	06110577	U-235+236	Uranium-235/236	N001	0.0171	pCi/L	HU	 	0.038	0.0146	valid
GS05	5/8/2006	06110577	U-238	Uranium-238	N001	0.238	pCi/L	Н	JF.	0.0264	0.0479	valid

Appendix A: Analytical Ro		LAB	1	1								
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
GS05	5/8/2006	06110577	7440-66-6	Zinc	0001	7.2	ug/L	B	F	2	IAMITI	valid
GS05	7/10/2006	06070430	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.160		valid
GS05	7/10/2006	06070430	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.2	ug/L	U	F	0.2		valid
GS05	7/10/2006	06070430	79-00-5	1,1,2-Trichloroethane	N001	0.32	ug/L	U	F	0.32		valid
GS05	7/10/2006	06070430	75-34-3	1,1-Dichloroethane	N001	0.16	ug/L	U	F	0.16		valid
GS05	7/10/2006	06070430	75-35-4	1,1-Dichloroethene	N001	0.14	ug/L	U	F	0.14		valid
GS05	7/10/2006	06070430	120-82-1	1,2,4-Trichlorobenzene	N001	0.32	ug/L	U	F	0.320		valid
GS05	7/10/2006	06070430	96-12-8	1,2-Dibromo-3-chloropropane	N001	1.5	ug/L	U	F	1.5		valid
GS05	7/10/2006	06070430	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	II	F	0.18		valid
GS05	7/10/2006	06070430	95-50-1	1,2-Dichlorobenzene	N001	0.13	ug/L	IJ	F	0.130		valid
GS05	7/10/2006	06070430	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		valid
GS05	7/10/2006	06070430	78-87-5	1,2-Dichloropropane	N001	0.13	ug/L	U	F	0.13		valid
GS05	7/10/2006	06070430	541-73-1	1,3-Dichlorobenzene	N001	0.16	ug/L	II	F	0.16		valid
GS05	7/10/2006	06070430	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid
GS05	7/10/2006	06070430	78-93-3	2-Butanone	N001	1.8	ug/L	U	F	1.8		valid
GS05	7/10/2006	06070430	108-10-1	4-Methyl-2-Pentanone	N001	0.49	ug/L	11	F	0.490		valid
GS05	7/10/2006	06070430	67-64-1	Acetone	N001	3.7	ug/L	J B	F	1.900		U
GS05	7/10/2006	06070430	107-02-8	Acrolein	N001	2.8	ug/L	11	F	2.8		valid
GS05	7/10/2006	06070430	107-13-1	Acrylonitrile	N001	1.4	ug/L	U	F	1.4		valid
GS05	7/10/2006	06070430	71-43-2	Benzene	N001	0.16	ug/L	IJ	F	0.16		valid
GS05	7/10/2006	06070430	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		valid
GS05	7/10/2006	06070430	75-25-2	Bromoform	N001	0.19	ug/L	U .	F	0.19		valid
GS05	7/10/2006	06070430	74-83-9	Bromomethane	N001	0.13	ug/L	IJ	F	0.13		valid
GS05	7/10/2006	06070430	75-15-0	Carbon Disulfide	N001	0.45	ug/L	U .	F	0.45		valid
GS05	7/10/2006	06070430	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	-	0.19		valid
GS05	7/10/2006	06070430	108-90-7	Chlorobenzene	N001	0.13	ug/L	II	F	0.17		valid
GS05	7/10/2006	06070430	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U .	F	0.17		valid
GS05	7/10/2006	06070430	75-00-3	Chloroethane	N001	0.17	ug/L	II	-	0.41		valid
GS05	7/10/2006	06070430	67-66-3	Chloroform	N001	0.16	ug/L	IJ	-	0.16		valid
GS05	7/10/2006	06070430	74-87-3	Chloromethane	N001	0.10	ug/L	U	F	0.3		valid
GS05	7/10/2006	06070430	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	<u>U</u>	F	0.15		valid
GS05	7/10/2006	06070430	87-68-3	Hexachlorobutadiene	N001	0.13	ug/L	U .	F	0.12		valid
GS05	7/10/2006	06070430	M&P XYLENE	m,p-Xylene	N001	0.12	ug/L	IJ	F	0.34		valid
GS05	7/10/2006	06070430	7439-97-6	Mercury	N001	0.027	ug/L	IJ	-	0.027		valid
GS05	7/10/2006	06070430	75-09-2	Methylene chloride	N001	0.32	ug/L	IJ	F	0.32		valid
GS05	7/10/2006	06070430	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		valid
GS05	7/10/2006	06070430	95-47-6	o-Xylene	N001	0.19	ug/L	U	<u>-</u>	0.19		valid
GS05	7/10/2006	06070430	100-42-5	Styrene	N001	0.13	ug/L	U	<u>-</u>	0.17		valid
GS05	7/10/2006	06070430	127-18-4	Tetrachloroethene	N001	0.17	ug/L	II	F	0.17		valid
GS05	7/10/2006	06070430	108-88-3	Toluene	N001	0.2	ug/L	IJ	F	0.17		valid
GS05	7/10/2006	06070430	100-66-3	Total Xvlene	N001	0.17	ug/L	IJ	F.	0.17		valid
GS05	7/10/2006	06070430	156-60-5	trans-1,2-Dichloroethene	N001	0.16	ug/L ug/L	IJ	F	0.15		valid
GS05	7/10/2006	06070430	79-01-6	Trichloroethene	N001	0.16	ug/L ug/L	IJ	F.	0.16		valid
GS05	7/10/2006	06070430	75-01-4	Vinyl chloride	N001	0.10	ug/L ug/L	IJ	F.	0.17		valid
GS10	7/3/2006	06070430	AM-241	Americium-241	N001	0.00609	pCi/L	II	<u>.</u>	0.03	0.0292	valid
GS10 GS10	7/3/2006	06070431	AM-241	Americium-241	N001	0.00704	pCi/L	U		0.0272	0.0292	valid
GS10 GS10	7/3/2006	06070431	7440-41-7	Beryllium	N002 N001	1	ug/L	U	F	1	0.0124	valid
GS10 GS10	7/3/2006	06070431	7440-41-7	Beryllium	N001	1	ug/L ug/L	11		1	+	valid
GS10	7/3/2006	06070431	7440-41-7	Cadmium	0001	0.1	ug/L ug/L	II	5	0.1	+	valid
GS10	7/3/2006	06070431	7440-43-9	Cadmium	0001	0.1	ug/L ug/L	IJ		0.1	+	valid
GS10	7/3/2006	06070431	7440-43-9	Chromium	N001	1	ug/L ug/L	U	F	1	-	valid
		06070431	7440-47-3		N001 N002	1		IJ	<u> </u>	1		valid
GS10	7/3/2006			Chromium		400	ug/L	U	- -	2	-	
GS10	7/3/2006	06070431	HARDNESS	Hardness	N001	499	mg/L		D	2	-	valid
GS10	7/3/2006	06070431	HARDNESS	Hardness	N002	511	mg/L	U	D D	0.0216	0.01	valid
GS10	7/3/2006	06070431	PU-239,240	Plutonium-239, 240	N001	0.00965	pCi/L	U	<u> </u>	0.0216	0.01	valid
GS10	7/3/2006	06070431	PU-239,240	Plutonium-239, 240	N002	0.00625	pCi/L	U	ח	0.0233	0.0178	valid

Appendix A: Analytical Ro	esures for water San	LAB	C100		1			ı	1	1		1
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID	DECINT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
GS10	7/3/2006	06070431	7440-22-4	Silver	0001	0.2	ug/L	UGALIFIERS	F	0.2	IAINTI	valid
GS10	7/3/2006	06070431	7440-22-4	Silver	0001		ug/L	U	D.	0.2		valid
GS10	7/3/2006	06070431	U-234	Uranium-234	N001	4.06	pCi/L	U	D	0.0407	0.177	valiu I
GS10	7/3/2006	06070431	U-234	Uranium-234	N001	4.47	pCi/L		D	0.0388	0.177	valid
GS10 GS10	7/3/2006	06070431	U-235+236	Uranium-235/236	N002	0.135	pCi/L		D	0.0344	0.0439	Vallu I
GS10	7/3/2006	06070431	U-235+236	Uranium-235/236	N001	0.133	pCi/L		D.	0.0327	0.0433	valid
GS10	7/3/2006	06070431	U-238	Uranium-238	N002	3.94	pCi/L		E	0.0433	0.173	I
GS10 GS10	7/3/2006	06070431	U-238	Uranium-238	N001	4.16	pCi/L		D.	0.0412	0.173	valid
GS10	7/10/2006	06080452	AM-241	Americium-241	N002	0.0472	pCi/L		E	0.0439	0.0271	I
GS10	7/10/2006	06080452	7440-41-7	Beryllium	N001		ug/L	П	F	1	0.0271	valid
GS10	7/10/2006	06080452	7440-43-9	Cadmium	0001	0.1	ug/L	II	F	0.1		valid
GS10	7/10/2006	06080452	7440-43-9	Chromium	N001		ug/L	U	<u>-</u>	1		valid
GS10	7/10/2006	06080452	HARDNESS	Hardness	N001	577	mg/L	0	<u>-</u>	5		valid
GS10	7/10/2006	06080452	PU-239,240	Plutonium-239, 240	N001	0	pCi/L	П	F	0.0219	0.00542	valid
GS10	7/10/2006	06080452	7440-22-4	Silver	0001		ug/L	П	<u>-</u>	0.0219	0.00342	valid
GS10	7/10/2006	06080452	U-234	Uranium-234	N001	5.34	pCi/L	U	F	0.0776	0.708	valid
GS10	7/10/2006	06080452	U-235+236	Uranium-235/236	N001		pCi/L		-	0.0654	0.708	valid
GS10 GS10	7/10/2006	06080452	U-238	Uranium-238	N001	4.84	pCi/L		<u>r</u>	0.0825	0.645	valid
GS10 GS10							pCi/L		<u></u>	0.00686	0.045	valiu
	7/27/2006	06080463 06080463	AM-241 7440-41-7	Americium-241	N001	0.0269			F	0.00686	0.0154	J
GS10	7/27/2006			Beryllium	N001	0.4	ug/L	U	F	0.4		J
GS10 GS10	7/27/2006 7/27/2006	06080463	7440-43-9 7440-47-3	Cadmium	0001 N001	0.1	ug/L	U U	F	0.1		valid
		06080463		Chromium Hardness		604	ug/L	U	-	-		J
GS10	7/27/2006	06080463 06080463	HARDNESS		N001		mg/L	H	F	5	0.0404	J
GS10	7/27/2006		PU-239,240	Plutonium-239, 240	N001	0.00186	pCi/L	U	F	0.0208	0.0121	valid
GS10	7/27/2006	06080463	7440-22-4	Silver	0001	0.2	ug/L	U	F	0.2	0.040	valid
GS10	7/27/2006	06080463	U-234	Uranium-234	N001	5.26	pCi/L		F	0.0457	0.212	valid
GS10	7/27/2006	06080463	U-235+236	Uranium-235/236	N001	0.29	pCi/L		F	0.0385	0.0603	valid
GS10	7/27/2006	06080463	U-238	Uranium-238	N001	4.86	pCi/L		F	0.0486	0.204	valid
GS10	8/10/2006	06080479	AM-241	Americium-241	N001	-0.00286	pCi/L	U	F	0.0257	0.0132	valid
GS10	8/10/2006	06080479	7440-41-7	Beryllium	N001	1	ug/L	U	F	1		valid
GS10	8/10/2006	06080479	7440-43-9	Cadmium	0001	0.1	ug/L	II	F	0.1		valid
GS10	8/10/2006	06080479	7440-47-3	Chromium	N001		ug/L	U	F	1		valid
GS10	8/10/2006	06080479	HARDNESS	Hardness	N001		mg/L		F	2		J
GS10	8/10/2006	06080479	PU-239,240	Plutonium-239, 240	N001		pCi/L	U	F	0.0227	0.00889	valid
GS10	8/10/2006	06080479	7440-22-4	Silver	0001	0.2	ug/L	U	F	0.2	0.010	valid
GS10	8/10/2006	06080479	U-234	Uranium-234	N001		pCi/L		F	0.0504	0.612	valid
GS10	8/10/2006	06080479	U-235+236	Uranium-235/236	N001	0.305	pCi/L		F	0.0425	0.0686	valid
GS10	8/10/2006	06080479	U-238	Uranium-238	N001		pCi/L		F	0.0536	0.553	valid
GS10	8/30/2006	06100522	AM-241	Americium-241	N001		pCi/L	U	F	0.0284	0.0121	valid
GS10	8/30/2006	06100522	7440-41-7	Beryllium	N001	5.4	ug/L		l-	7		U
GS10	8/30/2006	06100522	7440-43-9	Cadmium	0001	0.1	ug/L	U	F	0.1		valid
GS10	8/30/2006	06100522	7440-47-3	Chromium	N001	4.5	ug/L	В	F	1		U
GS10	8/30/2006	06100522	HARDNESS	Hardness	N001	503	mg/L		l-	5	0.00011	valid
GS10	8/30/2006	06100522	PU-239,240	Plutonium-239, 240	N001		pCi/L		F	0.00476	0.00941	valid
GS10	8/30/2006	06100522	7440-22-4	Silver	0001	0.2	ug/L	U	IF	0.2		valid
GS10	8/30/2006	06100522	U-234	Uranium-234	N001		pCi/L		F .	0.0355	0.318	valid
GS10	8/30/2006	06100522	U-235+236	Uranium-235/236	N001	0.116	pCi/L		F	0.0301	0.0353	valid
GS10	8/30/2006	06100522	U-238	Uranium-238	N001	2.63	pCi/L		F	0.038	0.284	valid
GS13	7/6/2006	06070431	U-234	Uranium-234	N001	2.81	pCi/L		F	0.0421	0.148	valid
GS13	7/6/2006	06070431	U-235+236	Uranium-235/236	N001	0.127	pCi/L		JF	0.0355	0.0369	valid
GS13	7/6/2006	06070431	U-238	Uranium-238	N001	2.53	pCi/L		F	0.0448	0.14	valid
GS13	7/10/2006	06100522	U-234	Uranium-234	N001	8.08	pCi/L		F	0.0372	0.813	valid
GS13	7/10/2006	06100522	U-235+236	Uranium-235/236	N001		pCi/L		F	0.0315	0.07	valid
GS13	7/10/2006	06100522	U-238	Uranium-238	N001	7.09	pCi/L		F	0.0395	0.717	valid
GS59	5/8/2006	06110577	7429-90-5	Aluminum	0001		ug/L	U	F	68		valid
GS59	5/8/2006	06110577	7440-36-0	Antimony	N001	4	ug/L	U	F	4		valid

Appendix A: Analytical Re	esults for Water San		CY06									
		LAB										
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION_CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
GS59	5/8/2006	06110577	7440-38-2	Arsenic	N001	6	ug/L	U	F	6		valid
GS59	5/8/2006	06110577	7440-39-3	Barium	N001	130	ug/L		F	1		valid
GS59	5/8/2006	06110577	7440-41-7	Beryllium	N001	1	ug/L	U	F	1		valid
GS59	5/8/2006	06110577	7440-42-8	Boron	N001	20.8	ug/L	В	F	10		valid
GS59	5/8/2006	06110577	7440-43-9	Cadmium	0001	1	ug/L	U	F	1		valid
GS59	5/8/2006	06110577	7440-47-3	Chromium	N001	1.8	ug/L	В	F	1		valid
GS59	5/8/2006	06110577	7440-50-8	Copper	0001	3	ug/L	U	F	3		valid
GS59	5/8/2006	06110577	7439-92-1	Lead	0001	2.5	ug/L	U	F	2.5		valid
GS59	5/8/2006	06110577	7439-96-5	Manganese	N001	2.3	ug/L	В	F	2		valid
GS59	5/8/2006	06110577	7439-97-6	Mercury	N001	0.06	ug/L	U	F	0.06		valid
GS59	5/8/2006	06110577	7440-02-0	Nickel	0001	1	ug/L	U	F	1		valid
GS59	5/8/2006	06110577	7782-49-2	Selenium	N001	6.9	ug/L	В	F	6		U
GS59	5/8/2006	06110577	7440-22-4	Silver	0001	1	ug/L	U	F	1		valid
GS59	5/8/2006	06110577	7440-28-0	Thallium	N001	5	ug/L	U	F	5		valid
GS59	5/8/2006	06110577	U-234	Uranium-234	N001	3.19	pCi/L	Н	F	0.0531	0.404	valid
GS59	5/8/2006	06110577	U-235+236	Uranium-235/236	N001	0.134	pCi/L	H	F	0.0543	0.0433	valid
GS59	5/8/2006	06110577	U-238	Uranium-238	N001	2.33	pCi/L	Н	F	0.0378	0.306	valid
GS59 GS59	5/8/2006	06110577	7440-66-6	Zinc	0001	9	ug/L	В	r F	2	0.500	valid
GS59 GS59	7/10/2006	06070430	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L ug/L	II	<u>'</u>	0.16	1	valid
								11	r	0.10		valid
GS59	7/10/2006	06070430	79-34-5 79-00-5	1,1,2,2-Tetrachloroethane	N001 N001	0.2	ug/L	U	<u></u>			
GS59	7/10/2006	06070430		1,1,2-Trichloroethane		0.32	ug/L	U U	F	0.320		valid
GS59	7/10/2006	06070430	75-34-3	1,1-Dichloroethane	N001	0.16	ug/L	U	F	0.16		valid
GS59	7/10/2006	06070430	75-35-4	1,1-Dichloroethene	N001	0.14	ug/L	II	F	0.14		valid
GS59	7/10/2006	06070430	120-82-1	1,2,4-Trichlorobenzene	N001	0.32	ug/L	Ü	F	0.32		valid
GS59	7/10/2006	06070430	96-12-8	1,2-Dibromo-3-chloropropane	N001	1.5	ug/L	U	F	1.5		valid
GS59	7/10/2006	06070430	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		valid
GS59	7/10/2006	06070430	95-50-1	1,2-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		valid
GS59	7/10/2006	06070430	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		valid
GS59	7/10/2006	06070430	78-87-5	1,2-Dichloropropane	N001	0.13	ug/L	U	F	0.13		valid
GS59	7/10/2006	06070430	541-73-1	1,3-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid
GS59	7/10/2006	06070430	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid
GS59	7/10/2006	06070430	78-93-3	2-Butanone	N001	1.8	ug/L	U	F	1.8		valid
GS59	7/10/2006	06070430	108-10-1	4-Methyl-2-Pentanone	N001	0.49	ug/L	U	F	0.49		valid
GS59	7/10/2006	06070430	67-64-1	Acetone	N001	8.2	ug/L	JB	F	1.9		U
GS59	7/10/2006	06070430	107-02-8	Acrolein	N001	2.8	ug/L	U	F	2.8		valid
GS59	7/10/2006	06070430	107-13-1	Acrylonitrile	N001	1.4	ug/L	U	F	1.4		valid
GS59	7/10/2006	06070430	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		valid
GS59	7/10/2006	06070430	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		valid
GS59	7/10/2006	06070430	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		valid
GS59	7/10/2006	06070430	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		valid
GS59	7/10/2006	06070430	75-15-0	Carbon Disulfide	N001	0.45	ug/L	U	F	0.45		valid
GS59	7/10/2006	06070430	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		valid
GS59	7/10/2006	06070430	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		valid
GS59	7/10/2006	06070430	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		valid
GS59	7/10/2006	06070430	75-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		valid
GS59	7/10/2006	06070430	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		valid
GS59	7/10/2006	06070430	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.300		valid
GS59	7/10/2006	06070430	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid
GS59	7/10/2006	06070430	87-68-3	Hexachlorobutadiene	N001	0.12	ug/L	U	F	0.12		valid
GS59	7/10/2006	06070430	M&P XYLENE	m,p-Xylene	N001	0.34	ug/L	U	F	0.34		valid
GS59	7/10/2006	06070430	7439-97-6	Mercury	N001	0.027	ug/L	Ü	F	0.027		valid
GS59	7/10/2006	06070430	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		valid
GS59	7/10/2006	06070430	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		valid
GS59	7/10/2006	06070430	95-47-6	o-Xylene	N001	0.19	ug/L	U	F	0.19		valid
GS59	7/10/2006	06070430	100-42-5	,	N001			U	F	0.17		valid
				,					F		1	valid
GS59 GS59	7/10/2006 7/10/2006	06070430 06070430	100-42-5 127-18-4	Styrene Tetrachloroethene	N001 N001	0.17	ug/L ug/L	U U	F	0.17		_

Appendix A: Analytical Res	sults for Water San		CY06			1		1			1	1
		LAB										
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION_CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID		UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
GS59	7/10/2006	06070430	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		valid
GS59	7/10/2006	06070430	100-41-4	Total Xylene	N001	0.16	ug/L	U	F	0.16		valid
GS59	7/10/2006	06070430	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid
GS59	7/10/2006	06070430	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		valid
GS59	7/10/2006	06070430	75-01-4	Vinyl chloride	N001	0.17	ug/L	U	F	0.17		valid
GWISINFNORTH	7/25/2006	06070443	71-55-6	1,1,1-Trichloroethane	N001	1	ug/L		F	1		valid
GWISINFNORTH	7/25/2006	06070443	79-34-5	1,1,2,2-Tetrachloroethane	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	79-00-5	1,1,2-Trichloroethane	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	75-34-3	1,1-Dichloroethane	N001	3.1	ug/L		F	1		valid
GWISINFNORTH	7/25/2006	06070443	75-35-4	1,1-Dichloroethene	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	120-82-1	1,2,4-Trichlorobenzene	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	96-12-8	1,2-Dibromo-3-chloropropane	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	106-93-4	1,2-Dibromoethane	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	95-50-1	1,2-Dichlorobenzene	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	107-06-2	1,2-Dichloroethane	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	78-87-5	1,2-Dichloropropane	N001		ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	541-73-1	1,3-Dichlorobenzene	N001		ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	106-46-7	1,4-Dichlorobenzene	N001		ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	78-93-3	2-Butanone	N001		ug/L	U	F	10		valid
GWISINFNORTH	7/25/2006	06070443	108-10-1	4-Methyl-2-Pentanone	N001	10	ug/L	U	F	10		valid
GWISINFNORTH	7/25/2006	06070443	67-64-1	Acetone	N001		ug/L	U	F	10		valid
GWISINFNORTH	7/25/2006	06070443	107-02-8	Acrolein	N001		ug/L	Ü	F	25		valid
GWISINFNORTH	7/25/2006	06070443	107-13-1	Acrylonitrile	N001	25	ug/L	U	F	25		valid
GWISINFNORTH	7/25/2006	06070443	7429-90-5	Aluminum	0001	68	ug/L	U	F	68		valid
GWISINFNORTH	7/25/2006	06070443	7440-36-0	Antimony	N001	9.2	ug/L	В	F	4		U
GWISINFNORTH	7/25/2006	06070443	7440-38-2	Arsenic	N001	23.1	ug/L	В	F	6		valid
GWISINFNORTH	7/25/2006	06070443	7440-39-3	Barium	N001	-	ug/L	_	F	1		valid
GWISINFNORTH	7/25/2006	06070443	71-43-2	Benzene	N001	-	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	7440-41-7	Beryllium	N001		ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	7440-42-8	Boron	N001		ug/L		F	10		valid
GWISINFNORTH	7/25/2006	06070443	75-27-4	Bromodichloromethane	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	75-25-2	Bromoform	N001	0.84	ug/L	J	F	1		valid
GWISINFNORTH	7/25/2006	06070443	74-83-9	Bromomethane	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	7440-43-9	Cadmium	0001	1.7	ug/L	В	F	1		valid
GWISINFNORTH	7/25/2006	06070443	75-15-0	Carbon Disulfide	N001		ug/L	U	F	5		valid
GWISINFNORTH	7/25/2006	06070443	56-23-5	Carbon tetrachloride	N001		ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	108-90-7	Chlorobenzene	N001		ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	124-48-1	Chlorodibromomethane	N001		ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	75-00-3	Chloroethane	N001	6.2	ug/L		F	1		valid
GWISINFNORTH	7/25/2006	06070443	67-66-3	Chloroform	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	74-87-3	Chloromethane	N001	1	ug/L	11	F	1		valid
GWISINFNORTH	7/25/2006	06070443	7440-47-3	Chromium	N001	1	ug/L	IJ	F	1		valid
GWISINFNORTH	7/25/2006	06070443	156-59-2	cis-1,2-Dichloroethene	N001	1.9	ug/L		F	1		valid
GWISINFNORTH	7/25/2006	06070443	7440-50-8	Copper	0001		ug/L	U	F	3		valid
GWISINFNORTH	7/25/2006	06070443	87-68-3	Hexachlorobutadiene	N001	1	ug/L	II	r F	1		valid
GWISINFNORTH	7/25/2006	06070443	7439-92-1	Lead	0001	2.5	ug/L	IJ	r F	2.5		valid
GWISINFNORTH	7/25/2006	06070443	M&P XYLENE	m,p-Xylene	N001		ug/L ug/L	J	r F	1		valid
GWISINFNORTH	7/25/2006	06070443	7439-96-5	Manganese	N001		ug/L		F	2		valid
GWISINFNORTH	7/25/2006	06070443	7439-90-5	Mercury	N001		ug/L	П	F.	0.06		valid
GWISINFNORTH	7/25/2006	06070443	75-09-2	Methylene chloride	N001	5	ug/L	IJ	F	5		valid
GWISINFNORTH	7/25/2006	06070443	91-20-3	Naphthalene	N001	-	ug/L ug/L	U	r F	1		valid
GWISINFNORTH	7/25/2006	06070443	7440-02-0	Nickel	0001		ug/L ug/L	В	r F	1		valid
GWISINFNORTH	7/25/2006	06070443	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001		mg/L		r F	0.014		valid
GWISINFNORTH	7/25/2006	06070443	95-47-6	o-Xylene	N001		ug/L	IJ	· -	1		valid
GWISINFNORTH	7/25/2006	06070443	7782-49-2	Selenium	N001		ug/L ug/L	U	F	6	-	valid
GWISINFNORTH	7/25/2006	06070443	7440-22-4	Silver	0001		ug/L ug/L	IJ		1		valid
GWIGHNENOKIH	1/23/2000	00070443	1 440-22-4	Ollvei	0001		ug/L	U	lı .	l '	l	valiu

Appendix A: Analytical Res	ults for Water San		CY06									
		LAB										
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION_CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
GWISINFNORTH	7/25/2006	06070443	100-42-5	Styrene	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	127-18-4	Tetrachloroethene	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	7440-28-0	Thallium	N001	20.5	ug/L	В	F	5		valid
GWISINFNORTH	7/25/2006	06070443	108-88-3	Toluene	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	100-41-4	Total Xylene	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	156-60-5	trans-1,2-Dichloroethene	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	10061-02-6	trans-1,3-dichloropropene	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	79-01-6	Trichloroethene	N001	1	ug/L	U	F	1		valid
GWISINFNORTH	7/25/2006	06070443	U-234	Uranium-234	N001	1	pCi/L	_	F	0.165	0.189	valid
GWISINFNORTH	7/25/2006	06070443	U-235+236	Uranium-235/236	N001	-0.0489	pCi/L	U	F	0.139	0.0958	valid
GWISINFNORTH	7/25/2006	06070443	U-238	Uranium-238	N001	0.791	pCi/L	_	F	0.175	0.173	valid
GWISINFNORTH	7/25/2006	06070443	75-01-4	Vinyl chloride	N001	1.9	ug/L		F	1		valid
GWISINFNORTH	7/25/2006	06070443	7440-66-6	Zinc	0001		ug/L	В	F	2		valid
P416589	8/30/2006	06080481	71-55-6	1,1,1-Trichloroethane	N001		ug/L	U	F	0.16		valid
P416589	8/30/2006	06080481	79-34-5	1,1,2,2-Tetrachloroethane	N001		ug/L	U	F	0.2		valid
P416589	8/30/2006	06080481	79-00-5	1,1,2-Trichloroethane	N001		ug/L	U	F	0.32		valid
P416589	8/30/2006	06080481	75-34-3	1,1-Dichloroethane	N001		ug/L	IJ	F	0.16		valid
P416589	8/30/2006	06080481	75-35-4	1,1-Dichloroethene	N001		ug/L	U	F	0.14		valid
P416589	8/30/2006	06080481	95-94-3	1,2,4,5-Tetrachlorobenzene	N001	2	ug/L	IJ	F	2		valid
P416589	8/30/2006	06080481	120-82-1	1,2,4-Trichlorobenzene	N001	0.32	ug/L	U	E	0.32		valid
P416589	8/30/2006	06080481	96-12-8	1,2-Dibromo-3-chloropropane	N001	1.5	ug/L	II	E	1.5		valid
P416589	8/30/2006	06080481	106-93-4	1,2-Dibromoethane	N001		ug/L ug/L	U	F	0.18		valid
P416589	8/30/2006	06080481	95-50-1	1,2-Dichlorobenzene	N001	0.18	ug/L	II	_	0.13		valid
P416589	8/30/2006	06080481	107-06-2	1,2-Dichloroethane	N001	0.13	·	U	г г	0.130		valid
P416589	8/30/2006	06080481	78-87-5	,	N001	0.13	ug/L ug/L	IJ	г г	0.13		
		06080481	122-66-7	1,2-Dichloropropane	N001			U	<u>г</u>	0.64		valid valid
P416589 P416589	8/30/2006	06080481	541-73-1	1,2-Diphenylhydrazine	N001	0.64	ug/L	IJ	_	0.16		
	8/30/2006			1,3-Dichlorobenzene			ug/L	•	_			valid
P416589	8/30/2006	06080481	106-46-7	1,4-Dichlorobenzene	N001		ug/L	U	r -	0.16		valid
P416589	8/30/2006	06080481 06080481	105-67-9	2, 4-Dimethylphenol	N001	0.57	ug/L	U	-	0.57		valid
P416589	8/30/2006		88-06-2	2,4,6-Trichlorophenol	N001		ug/L	U	r -	5		valid
P416589	8/30/2006	06080481	120-83-2	2,4-Dichlorophenol	N001		ug/L	U	-	1.3		valid
P416589	8/30/2006	06080481	51-28-5	2,4-Dinitrophenol	N001		ug/L	0	-	20		valid
P416589	8/30/2006	06080481	121-14-2	2,4-Dinitrotoluene	N001		ug/L	U	F	5		valid
P416589	8/30/2006	06080481	606-20-2	2,6-Dinitrotoluene	N001		ug/L	U	F	5		valid
P416589	8/30/2006	06080481	78-93-3	2-Butanone	N001		ug/L	U	-	1.8		valid
P416589	8/30/2006	06080481	91-58-7	2-Chloronaphthalene	N001		ug/L	U	-	1.7		valid
P416589	8/30/2006	06080481	95-57-8	2-Chlorophenol	N001		ug/L	U	<u> </u>	0.38		valid
P416589	8/30/2006	06080481	95-48-7	2-Methylphenol	N001		ug/L	U	F	1.4		valid
P416589	8/30/2006	06080481	91-94-1	3,3'-Dichlorobenzidine	N001		ug/L	U	-	2		valid
P416589	8/30/2006	06080481	534-52-1	4,6-Dinitro-2-methyl phenol	N001	20	ug/L	U	<u> </u>	20		valid
P416589	8/30/2006	06080481	59-50-7	4-Chloro-3-methylphenol	N001	5	ug/L	U	F	5		valid
P416589	8/30/2006	06080481	108-10-1	4-Methyl-2-Pentanone	N001	0.49	ug/L	U	<u> </u>	0.49		valid
P416589	8/30/2006	06080481	100-02-7	4-Nitrophenol	N001		ug/L	U	-	1.7		valid
P416589	8/30/2006	06080481	83-32-9	Acenaphthene	N001		ug/L	U	F	1.7		valid
P416589	8/30/2006	06080481	208-96-8	Acenaphthylene	N001		ug/L	U	F	1.8		valid
P416589	8/30/2006	06080481	67-64-1	Acetone	N001	1.9	ug/L	U	F	1.9		valid
P416589	8/30/2006	06080481	107-02-8	Acrolein	N001		ug/L	U	F	2.8		valid
P416589	8/30/2006	06080481	107-13-1	Acrylonitrile	N001		ug/L	U	F	1.4		valid
P416589	8/30/2006	06080481	7429-90-5	Aluminum	0001	25	ug/L	В	F	18		valid
P416589	8/30/2006	06080481	120-12-7	Anthracene	N001		ug/L	U	F	1.9		valid
P416589	8/30/2006	06080481	56-55-3	Benz(a)anthracene	N001		ug/L	U	F	1.7		valid
P416589	8/30/2006	06080481	71-43-2	Benzene	N001		ug/L	U	F	0.16		valid
P416589	8/30/2006	06080481	92-87-5	Benzidine	N001		ug/L	U	F	50		valid
P416589	8/30/2006	06080481	50-32-8	Benzo(a)pyrene	N001		ug/L	U	F	1.3		valid
P416589	8/30/2006	06080481	205-99-2	Benzo(b)fluoranthene	N001	0.39	ug/L	U	F	0.39		valid
P416589	8/30/2006	06080481	191-24-2	Benzo(g,h,i)Perylene	N001	1	ug/L	U	F	1		valid

		LAB										
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	_
LOCATION_CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID		UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
P416589	8/30/2006	06080481	207-08-9	Benzo(k)fluoranthene	N001	0.46	ug/L	U	F	0.46		valid
P416589	8/30/2006	06080481	111-44-4	Bis(2-chloroethyl) ether	N001	3.9	ug/L	U	F	3.9		valid
P416589	8/30/2006	06080481	108-60-1	Bis(2-chloroisopropyl) ether	N001	0.43	ug/L	U	F	0.43		valid
P416589	8/30/2006	06080481	117-81-7	Bis(2-ethylhexyl) phthalate	N001	5	ug/L	U	F	5		valid
P416589	8/30/2006	06080481	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		valid
P416589	8/30/2006	06080481	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		valid
P416589	8/30/2006	06080481	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		valid
P416589	8/30/2006	06080481	85-68-7	Butyl benzyl phthalate	N001	5	ug/L	U	F	5		valid
P416589	8/30/2006	06080481	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		valid
P416589	8/30/2006	06080481	75-15-0	Carbon Disulfide	N001	0.45	ug/L	U	F	0.450		valid
P416589	8/30/2006	06080481	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		valid
P416589	8/30/2006	06080481	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		valid
P416589	8/30/2006	06080481	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		valid
P416589	8/30/2006	06080481	75-00-3	Chloroethane	N001	0.41	ug/L	U	F	0.41		valid
P416589	8/30/2006	06080481	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		valid
P416589	8/30/2006	06080481	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		valid
P416589	8/30/2006	06080481	218-01-9	Chrysene	N001	1	ug/L	U	F	1		valid
P416589	8/30/2006	06080481	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	Ū	F	0.15		valid
P416589	8/30/2006	06080481	7440-50-8	Copper	0001	4.5	ug/L	U	F	4.5		valid
P416589	8/30/2006	06080481	53-70-3	Dibenz(a,h)anthracene	N001	1.4	ug/L	U	F	1.4		valid
P416589	8/30/2006	06080481	84-66-2	Diethyl phthalate	N001	5	ug/L	U	F	5		valid
P416589	8/30/2006	06080481	131-11-3	Dimethyl phthalate	N001	5	ug/L	U	F	5		valid
P416589	8/30/2006	06080481	84-74-2	Di-n-butyl phthalate	N001	5	ug/L	U	F	5		valid
P416589	8/30/2006	06080481	206-44-0	Fluoranthene	N001	5	ug/L	U	F	5		valid
P416589	8/30/2006	06080481	86-73-7	Fluorene	N001	1	ug/L	U	F	1		valid
P416589	8/30/2006	06080481	118-74-1	Hexachlorobenzene	N001	2.1	ug/L	U	F	2.1		valid
P416589	8/30/2006	06080481	87-68-3	Hexachlorobutadiene	N001	0.12	ug/L	U	F	0.12		valid
P416589	8/30/2006	06080481	77-47-4	Hexachlorocyclopentadiene	N001	1.5	ug/L	U	F	1.5		valid
P416589	8/30/2006	06080481	193-39-5	Indeno(1,2,3-cd)pyrene	N001	1.5	ug/L	U	F	1.5		valid
P416589	8/30/2006	06080481	78-59-1	Isophorone	N001	1.5	ug/L ug/L	U	F	1.5		valid
P416589	8/30/2006	06080481	7439-92-1	Lead	0001	2.6	ug/L	II	E	2.6		valid
P416589	8/30/2006	06080481	M&P XYLENE	m,p-Xylene	N001	2.4	ug/L	U	E	0.34		valid
P416589	8/30/2006	06080481	75-09-2	Methylene chloride	N001	0.32		11	F	0.32		valid
P416589	8/30/2006	06080481	91-20-3	Naphthalene	N001	0.32	ug/L ug/L	U	F	0.32		valid
P416589		06080481	7440-02-0	Nickel	0001	7.8		U	F	7.8		valid
	8/30/2006				N001	1.1	ug/L	U	F	1.1		
P416589	8/30/2006	06080481	55-18-5	N-Nitrosodiethylamine			ug/L	U	F			valid
P416589	8/30/2006	06080481	62-75-9	N-Nitrosodimethylamine	N001	1.6	ug/L		F	1.6		valid
P416589	8/30/2006	06080481	621-64-7	N-Nitrosodi-n-propylamine	N001	5	ug/L	U	ir Ir	5		valid
P416589	8/30/2006	06080481	86-30-6	N-Nitrosodiphenylamine	N001	0.44	ug/L		F	0.44		valid
P416589	8/30/2006	06080481	930-55-2	N-Nitrosopyrrolidine	N001	0.8	ug/L	U	<u> </u>	0.8	ļ	valid
P416589	8/30/2006	06080481	95-47-6	o-Xylene	N001	0.19	ug/L	U	ir F	0.19	1	valid
P416589	8/30/2006	06080481	56-38-2	Parathion, ethyl	N001	2	ug/L	U	ir F	2	1	valid
P416589	8/30/2006	06080481	608-93-5	Pentachlorobenzene	N001	2	ug/L	U	F	2		valid
P416589	8/30/2006	06080481	87-86-5	Pentachlorophenol	N001	20	ug/L	U	F	20		valid
P416589	8/30/2006	06080481	85-01-8	Phenanthrene	N001	1	ug/L	U	F	1		valid
P416589	8/30/2006	06080481	108-95-2	Phenol	N001	1.4	ug/L	U	F	1.4		valid
P416589	8/30/2006	06080481	129-00-0	Pyrene	N001	0.37	ug/L	U	 -	0.37		valid
P416589	8/30/2006	06080481	7440-22-4	Silver	0001	2.8	ug/L	U	 -	2.8		valid
P416589	8/30/2006	06080481	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		valid
P416589	8/30/2006	06080481	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		valid
P416589	8/30/2006	06080481	108-88-3	Toluene	N001	0.6	ug/L	J	F	0.17		valid
P416589	8/30/2006	06080481	100-41-4	Total Xylene	N001	0.16	ug/L	U	F	0.16		valid
P416589	8/30/2006	06080481	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid
P416589	8/30/2006	06080481	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		valid
P416589	8/30/2006	06080481	75-01-4	Vinyl chloride	N001	0.17	ug/L	U	F	0.17		valid
P416589	8/30/2006	06080481	7440-66-6	Zinc	0001	5.1	ug/L	В	F	4.5	1	valid

Appendix A: Analytical Ro	esuits for water San	<u> </u>	C100		T			T		1		T
		LAB							044515	DETECTION	LINIOED	DATA VALIDATION
LOCATION CODE	DATE CAMPIED	REQUISITION	040	431413675	044401 5 10	DE0111 T		LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION_CODE PLFPONDEFF	DATE SAMPLED	NUMBER	CAS 7440-42-8	ANALYTE	SAMPLE ID		UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
	7/25/2006	06070443	7440-42-8	Boron	0001	1280	ug/L		<u> </u>	10		valid
PLFPONDEFF PLFPONDEFF	7/25/2006	06070443		Boron	N002	1290	ug/L		<u> </u>	10		valid
	7/31/2006	06080451	7440-38-2	Arsenic	N001	7.2	ug/L		<u> </u>	0.21		valid
PLFSEEPINF	7/25/2006	06070443	71-55-6	1,1,1-Trichloroethane	N001	1	ug/L	U	F	1		valid
PLFSEEPINF	7/25/2006	06070443	79-34-5	1,1,2,2-Tetrachloroethane	N001	1	ug/L	U	<u> </u>	1		valid
PLFSEEPINF PLFSEEPINF	7/25/2006 7/25/2006	06070443	79-00-5 75-34-3	1,1,2-Trichloroethane	N001	1	ug/L	U	<u> </u>	1		valid
		06070443		1,1-Dichloroethane	N001	1	ug/L	U	<u> </u>	1		valid
PLFSEEPINF	7/25/2006	06070443	75-35-4	1,1-Dichloroethene	N001 N001	1	ug/L	U II	<u> </u>	1		valid
PLFSEEPINF PLFSEEPINF	7/25/2006 7/25/2006	06070443 06070443	120-82-1 96-12-8	1,2,4-Trichlorobenzene	N001	1	ug/L	U	F	1		valid valid
PLFSEEPINF	7/25/2006	06070443	106-93-4	1,2-Dibromo-3-chloropropane 1,2-Dibromoethane	N001	1	ug/L	11	_	1		valid
PLFSEEPINF	7/25/2006	06070443	95-50-1	1,2-Dichlorobenzene	N001	1	ug/L	IJ	_	1		valid
PLFSEEPINF	7/25/2006	06070443	107-06-2	1,2-Dichloroethane	N001	1	ug/L	U II	F	1		valid
PLFSEEPINF	7/25/2006	06070443	78-87-5	1,2-Dichloropropane	N001	1	ug/L ug/L	U	F	1		valid
PLFSEEPINF	7/25/2006	06070443	541-73-1		N001	1		U	_	1		
PLFSEEPINF	7/25/2006	06070443	106-46-7	1,3-Dichlorobenzene 1,4-Dichlorobenzene	N001	1	ug/L	II	_	1		valid valid
				,		10	ug/L	U	<u> </u>	1		
PLFSEEPINF	7/25/2006	06070443 06070443	78-93-3 108-10-1	2-Butanone	N001 N001	10 10	ug/L	II	F	10		valid valid
PLFSEEPINF PLFSEEPINF	7/25/2006	06070443		4-Methyl-2-Pentanone Acetone	N001	10	ug/L ug/L	U	_	10		valid
PLFSEEPINF	7/25/2006	06070443	67-64-1	Acrolein	N001			U H	F			
	7/25/2006		107-02-8			25	ug/L	IJ	F	25		valid
PLFSEEPINF	7/25/2006	06070443	107-13-1	Acrylonitrile	N001	25	ug/L	U II	F	25		valid
PLFSEEPINF	7/25/2006	06070443	7429-90-5	Aluminum	0001	68	ug/L	B	F	68 4		valid U
PLFSEEPINF	7/25/2006	06070443	7440-36-0	Antimony	N001	7	ug/L	B	F	<u> </u>		-
PLFSEEPINF	7/25/2006	06070443	7440-38-2	Arsenic	N001	23.5	ug/L	В	F	6		valid
PLFSEEPINF	7/25/2006	06070443	7440-39-3	Barium	N001	570	ug/L		F	1		valid
PLFSEEPINF	7/25/2006	06070443	71-43-2	Benzene	N001	1.3	ug/L		F	1		valid
PLFSEEPINF	7/25/2006	06070443	7440-41-7	Beryllium	N001 N001	2500	ug/L	U	F	1		valid
PLFSEEPINF PLFSEEPINF	7/25/2006	06070443 06070443	7440-42-8	Boron		2500	ug/L		F	10		valid
_	7/25/2006		75-27-4	Bromodichloromethane	N001	1	ug/L	U	F	1		valid
PLFSEEPINF	7/25/2006	06070443	75-25-2	Bromoform	N001	1	ug/L	U	F	1		valid
PLFSEEPINF	7/25/2006	06070443	74-83-9	Bromomethane	N001	1 0	ug/L	B	<u> </u>	1 000		valid
PLFSEEPINF	7/25/2006	06070443	7440-43-9	Cadmium	0001	1.8	ug/L	II	<u> </u>	1.000		valid
PLFSEEPINF	7/25/2006	06070443	75-15-0	Carbon Disulfide	N001	5	ug/L	U H	<u> </u>	5		valid
PLFSEEPINF	7/25/2006	06070443	56-23-5	Carbon tetrachloride	N001	0.07	ug/L	U	F	1		valid
PLFSEEPINF PLFSEEPINF	7/25/2006	06070443 06070443	108-90-7 124-48-1	Chlorobenzene Chlorodibromomethane	N001 N001	0.27	ug/L ug/L	U	<u> </u>	1		valid valid
PLFSEEPINF	7/25/2006 7/25/2006	06070443	75-00-3	Chloroethane	N001	19.5		U	_	1		valid
PLFSEEPINF		06070443	67-66-3	Chloroform	N001	19.5	ug/L	U	<u> </u>	1		valid
PLFSEEPINF	7/25/2006 7/25/2006	06070443	74-87-3	Chloromethane	N001	1	ug/L ug/L	11	<u>r</u>	1		valid
PLFSEEPINF		06070443	7440-47-3		N001	1	·	IJ	_	1		valid
	7/25/2006	06070443	156-59-2	Chromium		1	ug/L	U H	<u> </u>	1		
PLFSEEPINF	7/25/2006	06070443	7440-50-8	cis-1,2-Dichloroethene	N001	1	ug/L	U	F	1		valid
PLFSEEPINF PLFSEEPINF	7/25/2006 7/25/2006	06070443	87-68-3	Copper Hexachlorobutadiene	0001 N001	3	ug/L ug/L	U	F	3		valid
						0.5	·	IJ	<u> </u>	0.5		valid
PLFSEEPINF	7/25/2006	06070443	7439-92-1	Lead	0001	2.5	ug/L	U	<u> </u>	2.5		valid
PLFSEEPINF	7/25/2006	06070443	M&P XYLENE	m,p-Xylene	N001	0040	ug/L		<u> </u>	1.000		valid
PLFSEEPINF	7/25/2006	06070443	7439-96-5	Manganese	N001	6310	ug/L	11	r	0.06		valid
PLFSEEPINF	7/25/2006	06070443	7439-97-6	Mercury	N001	0.06	ug/L	U	<u> </u>	0.06	1	valid
PLFSEEPINF	7/25/2006	06070443	75-09-2	Methylene chloride	N001	5	ug/L	U	F	5		valid
PLFSEEPINF	7/25/2006	06070443	91-20-3	Naphthalene	N001	3.6	ug/L	D	<u> </u>	1	1	valid
PLFSEEPINF	7/25/2006	06070443	7440-02-0	Nickel	0001	7.4	ug/L	В	F	1		valid
PLFSEEPINF	7/25/2006	06070443	95-47-6	o-Xylene	N001	0.28	ug/L	J	F	0.000	-	valid
PLFSEEPINF	7/25/2006	06070443	7782-49-2	Selenium	N001	6	ug/L	U	F	6.000		valid
PLFSEEPINF	7/25/2006	06070443	7440-22-4	Silver	0001	2.2	ug/L	B	 -	1		valid
PLFSEEPINF	7/25/2006	06070443	100-42-5	Styrene	N001	1	ug/L	U	F	1		valid
PLFSEEPINF	7/25/2006	06070443	127-18-4	Tetrachloroethene	N001	1	ug/L	U	 -	1		valid
PLFSEEPINF	7/25/2006	06070443	7440-28-0	Thallium	N001	27	ug/L	В	F	5	l	valid

Appendix A: Analytical Re	esuits for water san	<u> </u>	C100	1	1	T		ı	_	1		1
		LAB						LAB	CAMPLE	DETECTION	LINICED	DATA VALIDATION
LOCATION CODE	DATE CAMPI ED	REQUISITION	040	ANIALNEE	044401 5 10	DE0111 T		LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION_CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID		UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
PLFSEEPINF	7/25/2006	06070443	108-88-3	Toluene	N001	0.28	ug/L	J	F	1		valid
PLFSEEPINF	7/25/2006	06070443	100-41-4	Total Xylene	N001	1	ug/L	U	F	1.000		valid
PLFSEEPINF	7/25/2006	06070443	156-60-5	trans-1,2-Dichloroethene	N001	1	ug/L	ŭ	F	1 000		valid
PLFSEEPINF	7/25/2006	06070443	10061-02-6	trans-1,3-dichloropropene	N001	1	ug/L	U	F	1.000		valid
PLFSEEPINF	7/25/2006	06070443	79-01-6	Trichloroethene	N001	2.67	ug/L	U	F	0.161	0.202	valid
PLFSEEPINF PLFSEEPINF	7/25/2006 7/25/2006	06070443 06070443	U-234 U-235+236	Uranium-234 Uranium-235/236	N001 N001	2.67 0.0859	pCi/L pCi/L		F	0.161 0.136	0.283	valid valid
PLFSEEPINF	7/25/2006	06070443	U-235+236	Uranium-238	N001	2.13	pCi/L	U	<u></u>	0.171	0.066	valid
			75-01-4		N001	2.13			F	0.171	0.252	
PLFSEEPINF PLFSEEPINF	7/25/2006 7/25/2006	06070443 06070443	7440-66-6	Vinyl chloride Zinc	0001		ug/L	В	F	2.000		valid U
PLFSYSEFF	7/25/2006	06070443	71-55-6	1,1,1-Trichloroethane	N001	0.3	ug/L ug/L	D II		2.000		valid
PLFSYSEFF	7/25/2006	06070443	79-34-5		N001	1	_	U	<u></u>	1		
PLFSYSEFF	7/25/2006	06070443	79-34-5	1,1,2,2-Tetrachloroethane	N001	1	ug/L	11	<u></u>	1.000		valid valid
PLFSYSEFF	7/25/2006	06070443	75-34-3	1,1,2-Trichloroethane 1,1-Dichloroethane	N001	0.35	ug/L ug/L	1	<u>r</u>	1.000		valid
PLFSYSEFF	7/25/2006	06070443	75-34-3	1,1-Dichloroethene	N001			II	<u></u>	1.000		
							ug/L	U U	F			valid
PLFSYSEFF	7/25/2006	06070443	95-94-3	1,2,4,5-Tetrachlorobenzene	N001		ug/L	Ŭ.	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	120-82-1	1,2,4-Trichlorobenzene	N001		ug/L	U	F	1.000	1	valid
PLFSYSEFF	7/25/2006	06070443	96-12-8	1,2-Dibromo-3-chloropropane	N001		ug/L	Ŭ.	F	1		valid
PLFSYSEFF	7/25/2006	06070443	106-93-4	1,2-Dibromoethane	N001		ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	95-50-1	1,2-Dichlorobenzene	N001		ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	107-06-2	1,2-Dichloroethane	N001	1	ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	78-87-5	1,2-Dichloropropane	N001	1	ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	122-66-7	1,2-Diphenylhydrazine	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	541-73-1	1,3-Dichlorobenzene	N001	1	ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	106-46-7	1,4-Dichlorobenzene	N001	1	ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	105-67-9	2, 4-Dimethylphenol	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	88-06-2	2,4,6-Trichlorophenol	N001		ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	120-83-2	2,4-Dichlorophenol	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	51-28-5	2,4-Dinitrophenol	N001		ug/L	U	F	51		valid
PLFSYSEFF	7/25/2006	06070443	121-14-2	2,4-Dinitrotoluene	N001		ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	606-20-2	2,6-Dinitrotoluene	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	78-93-3	2-Butanone	N001		ug/L	U	F	10.000		valid
PLFSYSEFF	7/25/2006	06070443	91-58-7	2-Chloronaphthalene	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	95-57-8	2-Chlorophenol	N001		ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	95-48-7	2-Methylphenol	N001		ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	91-94-1	3,3'-Dichlorobenzidine	N001		ug/L	U	F	20.4		valid
PLFSYSEFF	7/25/2006	06070443	534-52-1	4,6-Dinitro-2-methyl phenol	N001		ug/L	U	F	51		valid
PLFSYSEFF	7/25/2006	06070443	59-50-7	4-Chloro-3-methylphenol	N001		ug/L	U	F	20.4		valid
PLFSYSEFF	7/25/2006	06070443	108-10-1	4-Methyl-2-Pentanone	N001	10	ug/L	U	F	10		valid
PLFSYSEFF	7/25/2006	06070443	100-02-7	4-Nitrophenol	N001	51	ug/L	U	F	51		valid
PLFSYSEFF	7/25/2006	06070443	83-32-9	Acenaphthene	N001	0.46	ug/L	J	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	208-96-8	Acenaphthylene	N001		ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	67-64-1	Acetone	N001		ug/L	U	F	10		valid
PLFSYSEFF	7/25/2006	06070443	107-02-8	Acrolein	N001		ug/L	U	F	25		valid
PLFSYSEFF	7/25/2006	06070443	107-13-1	Acrylonitrile	N001	25	ug/L	U	F	25.000		valid
PLFSYSEFF	7/25/2006	06070443	7429-90-5	Aluminum	0001		ug/L	U	F	68		valid
PLFSYSEFF	7/25/2006	06070443	120-12-7	Anthracene	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	7440-36-0	Antimony	N001		ug/L	В	F	4		U
PLFSYSEFF	7/25/2006	06070443	7440-38-2	Arsenic	N001	22.4	ug/L	В	F	6		valid
PLFSYSEFF	7/25/2006	06070443	7440-39-3	Barium	N001		ug/L		F	1		valid
PLFSYSEFF	7/25/2006	06070443	56-55-3	Benz(a)anthracene	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	71-43-2	Benzene	N001	1	ug/L	U	F	1.000		valid
PLFSYSEFF	7/25/2006	06070443	92-87-5	Benzidine	N001	40.8	ug/L	U	F	40.800		valid
PLFSYSEFF	7/25/2006	06070443	50-32-8	Benzo(a)pyrene	N001	10.2	ug/L	U	F	10.200		valid
PLFSYSEFF	7/25/2006	06070443	205-99-2	Benzo(b)fluoranthene	N001		ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	191-24-2	Benzo(g,h,i)Perylene	N001		ug/L	U	F	10.2		valid

Appendix A. Anaryticai Ke	Suits for Water San	iples – 3rd Quarter	C100	1	1	1		1		ı	1	1
		LAB										
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION_CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID		UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
PLFSYSEFF	7/25/2006	06070443	207-08-9	Benzo(k)fluoranthene	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	7440-41-7	Beryllium	N001	1	ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	111-44-4	Bis(2-chloroethyl) ether	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	108-60-1	Bis(2-chloroisopropyl) ether	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	117-81-7	Bis(2-ethylhexyl) phthalate	N001	10.2	ug/L	U	F	10.200		valid
PLFSYSEFF	7/25/2006	06070443	7440-42-8	Boron	N001		ug/L	11	F	10.000		valid
PLFSYSEFF	7/25/2006	06070443	75-27-4	Bromodichloromethane	N001		ug/L	0	-	1.000		valid
PLFSYSEFF	7/25/2006	06070443	75-25-2	Bromoform	N001		ug/L	U	F	1.000		valid
PLFSYSEFF	7/25/2006	06070443	74-83-9	Bromomethane	N001		ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	85-68-7	Butyl benzyl phthalate	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	7440-43-9	Cadmium	0001	2	ug/L	В	F	1		valid
PLFSYSEFF	7/25/2006	06070443	75-15-0	Carbon Disulfide	N001	5	ug/L	U	F	5		valid
PLFSYSEFF	7/25/2006	06070443	56-23-5	Carbon tetrachloride	N001	1	ug/L	U	F	1.000		valid
PLFSYSEFF	7/25/2006	06070443	108-90-7	Chlorobenzene	N001	1	ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	124-48-1	Chlorodibromomethane	N001	1	ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	75-00-3	Chloroethane	N001		ug/L		F	1.000		valid
PLFSYSEFF	7/25/2006	06070443	67-66-3	Chloroform	N001		ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	74-87-3	Chloromethane	N001		ug/L	U	F	1.000		valid
PLFSYSEFF	7/25/2006	06070443	7440-47-3	Chromium	N001		ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	218-01-9	Chrysene	N001		ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	156-59-2	cis-1,2-Dichloroethene	N001	1	ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	7440-50-8	Copper	0001	3	ug/L	U	F	3		valid
PLFSYSEFF	7/25/2006	06070443	53-70-3	Dibenz(a,h)anthracene	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	60-57-1	Dieldrin	N001		ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	84-66-2	Diethyl phthalate	N001		ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	131-11-3	Dimethyl phthalate	N001		ug/L	U	F	10.200		valid
PLFSYSEFF	7/25/2006	06070443	84-74-2	Di-n-butyl phthalate	N001		ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	88-85-7	Dinoseb	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	206-44-0	Fluoranthene	N001		ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	86-73-7	Fluorene	N001	0.3	ug/L	J	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	118-74-1	Hexachlorobenzene	N001	10.2	ug/L	U	F	10.200		valid
PLFSYSEFF	7/25/2006	06070443	87-68-3	Hexachlorobutadiene	N001	1	ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	77-47-4	Hexachlorocyclopentadiene	N001	10.2	ug/L	U	F	10.200		valid
PLFSYSEFF	7/25/2006	06070443	193-39-5	Indeno(1,2,3-cd)pyrene	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	78-59-1	Isophorone	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	7439-92-1	Lead	0001	2.5	ug/L	U	F	2.500		valid
PLFSYSEFF	7/25/2006	06070443	M&P XYLENE	m,p-Xylene	N001	0.51	ug/L	J	F	1.000		valid
PLFSYSEFF	7/25/2006	06070443	7439-96-5	Manganese	N001	6120	ug/L		F	2		valid
PLFSYSEFF	7/25/2006	06070443	7439-97-6	Mercury	N001	0.06	ug/L	U	F	0.060		valid
PLFSYSEFF	7/25/2006	06070443	72-43-5	Methoxychlor	N001	51	ug/L	U	F	51		valid
PLFSYSEFF	7/25/2006	06070443	75-09-2	Methylene chloride	N001	5	ug/L	U	F	5		valid
PLFSYSEFF	7/25/2006	06070443	91-20-3	Naphthalene	N001	1	ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	91-20-3	Naphthalene	N001		ug/L	U	F	1.000		valid
PLFSYSEFF	7/25/2006	06070443	7440-02-0	Nickel	0001	8.9	ug/L	В	F	1.000		valid
PLFSYSEFF	7/25/2006	06070443	924-16-3	N-Nitrosodibutylamine	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	55-18-5	N-Nitrosodiethylamine	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	62-75-9	N-Nitrosodimethylamine	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	621-64-7	N-Nitrosodi-n-propylamine	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	930-55-2	N-Nitrosopyrrolidine	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	95-47-6	o-Xylene	N001	1	ug/L	U	F	1		valid
PLFSYSEFF	7/25/2006	06070443	56-38-2	Parathion, ethyl	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	608-93-5	Pentachlorobenzene	N001	10.2	ug/L	U	F	10.200		valid
PLFSYSEFF	7/25/2006	06070443	87-86-5	Pentachlorophenol	N001		ug/L	U	F	51		valid
PLFSYSEFF	7/25/2006	06070443	85-01-8	Phenanthrene	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	108-95-2	Phenol	N001	10.2	ug/L	U	F	10.2		valid
PLFSYSEFF	7/25/2006	06070443	129-00-0	Pyrene	N001		ug/L	U	Е	10.2		valid

		LAB										
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION_CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
PLFSYSEFF	7/25/2006	06070443	7782-49-2	Selenium	N001	b	ug/L	D	-	4		valid
PLFSYSEFF	7/25/2006	06070443	7440-22-4	Silver	0001		ug/L	В	<u> </u>	1		valid
PLFSYSEFF	7/25/2006	06070443	100-42-5	Styrene	N001		ug/L	U	-	1		valid
PLFSYSEFF	7/25/2006	06070443	127-18-4	Tetrachloroethene Thallium	N001 N001		ug/L	B	<u> </u>	5		valid
PLFSYSEFF PLFSYSEFF	7/25/2006	06070443 06070443	7440-28-0	Toluene	N001		ug/L	II	<u> </u>	1		valid valid
PLFSYSEFF	7/25/2006 7/25/2006	06070443	108-88-3 100-41-4	Total Xylene	N001		ug/L	U	<u> </u>	1.000		valid
PLFSYSEFF		06070443	156-60-5		N001		ug/L	II	<u> </u>	1.000		valid
PLFSYSEFF	7/25/2006	06070443	10061-02-6	trans-1,2-Dichloroethene trans-1,3-dichloropropene	N001		ug/L	II	<u> </u>	1		valid
PLFSYSEFF	7/25/2006 7/25/2006	06070443	79-01-6	Trichloroethene	N001	1	ug/L ug/L	11		1		valid
PLFSYSEFF	7/25/2006	06070443	U-234	Uranium-234	N001	2.33	pCi/L	U		0.161	0.266	valid
PLFSYSEFF	7/25/2006	06070443	U-235+236	Uranium-235/236	N001	0.105	pCi/L	11		0.136	0.200	valid
PLFSYSEFF	7/25/2006	06070443	U-238	Uranium-238	N001	2.29	pCi/L	U	<u> </u>	0.171	0.0615	valid
PLFSYSEFF	7/25/2006	06070443	75-01-4	Vinyl chloride	N001	1.2	ug/L		<u>r</u>	1.000	0.201	valid
PLFSYSEFF	7/25/2006	06070443	7440-66-6	Zinc	0001		ug/L ug/L	В		2		valid
PLFSYSEFF	8/28/2006	06080479	7440-36-0		N001		ug/L ug/L	П		0.5		valid
PLFSYSEFF		06080479	7440-36-0	Antimony Cadmium	0001		_	B	_	0.100		valid
PLFSYSEFF	8/28/2006 8/28/2006	06080479	7440-43-9	Silver	0001		ug/L ug/L	IJ	F	0.100		valid
PLFSYSEFF	8/28/2006	06080479	7440-22-4	Thallium	N001		ug/L ug/L	11	F	0.4	1	valid
PLFSYSEFF	9/26/2006	06090507	7440-26-0	Antimony	N001		ug/L ug/L	B		0.07		valid
PLFSYSEFF	9/26/2006	06090507	7440-38-9	Cadmium	0001	0.13	ug/L ug/L	П		0.04		valid
PLFSYSEFF	9/26/2006	06090507	7440-43-9	Silver	0001		ug/L	U		0.16		valid
PLFSYSEFF	9/26/2006	06090507	7440-22-4	Thallium	N001		ug/L	IJ	-	0.02		valid
SPEIN	9/28/2006	06090499		Nitrate + Nitrite as Nitrogen	N001		mg/L	0	-	1.9		valid
SPEIN	9/28/2006	06090499	7440-61-1	Uranium	N001		ug/L		-	0.04		I
SPIN	9/11/2006	06090499		Nitrate + Nitrite as Nitrogen	N001		mg/L		F	0.96		valid
SPIN	9/11/2006	06090490	7440-61-1	Uranium	N001	54	ug/L		F.	0.04		valid
SPIN	9/14/2006	06090490		Nitrate + Nitrite as Nitrogen	N001		mg/L		F.	0.96		valid
SPIN	9/14/2006	06090490	7440-61-1	Uranium	N001	48	ug/L		F.	0.04		I
SPIN	9/18/2006	06090493		Nitrate + Nitrite as Nitrogen	N001	400	mg/L		<u>.</u> F	1.9		valid
SPIN	9/18/2006	06090493	7440-61-1	Uranium	N001	57	ug/L		F	0.04		valid
SPIN	9/21/2006	06090493		Nitrate + Nitrite as Nitrogen	N001		mg/L		F	1.9		valid
SPIN	9/21/2006	06090493	7440-61-1	Uranium	N001	49	ug/L		F	0.04		valid
SPIN	9/25/2006	06090499		Nitrate + Nitrite as Nitrogen	N001		mg/L		F	1.9		valid
SPIN	9/25/2006	06090499	7440-61-1	Uranium	N001	65	ug/L		F	0.04		valid
SPIN	9/28/2006	06090499		Nitrate + Nitrite as Nitrogen	N001		mg/L		F	1.9		valid
SPIN	9/28/2006	06090499	7440-61-1	Uranium	N001		ug/L		F	0.04		J
SPPDISCHARGEGALLERY	9/11/2006	06090490		Nitrate + Nitrite as Nitrogen	N001		mg/L		F	0.96		valid
SPPDISCHARGEGALLERY	9/11/2006	06090490	7440-61-1	Uranium	N001		ug/L		F	0.04		valid
SPPDISCHARGEGALLERY	9/14/2006	06090490		Nitrate + Nitrite as Nitrogen	N001		mg/L		F	0.96		valid
SPPDISCHARGEGALLERY	9/14/2006	06090490	7440-61-1	Uranium	N001		ug/L		F	0.04		J
SPPDISCHARGEGALLERY	9/18/2006	06090493		Nitrate + Nitrite as Nitrogen	N001		mg/L		F	0.96		valid
SPPDISCHARGEGALLERY	9/18/2006	06090493	7440-61-1	Uranium	N001		ug/L		F	0.04		valid
SPPDISCHARGEGALLERY	9/21/2006	06090493		Nitrate + Nitrite as Nitrogen	N001		mg/L		F	1.9		valid
SPPDISCHARGEGALLERY	9/21/2006	06090493	7440-61-1	Uranium	N001		ug/L		F	0.04		valid
SPPDISCHARGEGALLERY	9/25/2006	06090499		Nitrate + Nitrite as Nitrogen	N001	400	mg/L		F	1.9		valid
SPPDISCHARGEGALLERY	9/25/2006	06090499	7440-61-1	Uranium	N001		ug/L		F	0.04		valid
SPPDISCHARGEGALLERY	9/28/2006	06090499		Nitrate + Nitrite as Nitrogen	N001	400	mg/L		F	1.9		valid
SPPDISCHARGEGALLERY	9/28/2006	06090499	7440-61-1	Uranium	N001	56	ug/L		F	0.04		J
SPPMM01	9/11/2006	06090490		Nitrate + Nitrite as Nitrogen	N001	0.52	mg/L		F	0.019		valid
SPPMM01	9/11/2006	06090490	7440-61-1	Uranium	N001		ug/L		F	0.02		valid
SPPMM01	9/14/2006	06090490	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.38	mg/L		F	0.019		valid
SPPMM01	9/14/2006	06090490	7440-61-1	Uranium	N001		ug/L		F	0.02		J
SPPMM01	9/18/2006	06090493		Nitrate + Nitrite as Nitrogen	N001	0.36	mg/L		F	0.019		J
SPPMM01	9/18/2006	06090493	7440-61-1	Uranium	N001		ug/L		F	0.02		valid
SPPMM01	9/21/2006	06090493		Nitrate + Nitrite as Nitrogen	N001		mg/L		г	0.19	 	valid

Appendix A: Analytical Re		LAB										
		REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION
LOCATION CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS
SPPMM01	9/21/2006	06090493	7440-61-1	Uranium	N001	2.6	ug/L	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	F	0.02		valid
SPPMM01	9/25/2006	06090499	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	20	mg/L		F	0.19		valid
SPPMM01	9/25/2006	06090499	7440-61-1	Uranium	N001	3.1	ug/L		F	0.02		valid
SPPMM01	9/28/2006	06090499	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	11	mg/L		F	0.19		valid
SPPMM01	9/28/2006	06090499	7440-61-1	Uranium	N001	3.5	ug/L		F	0.02		J
SPWEF	9/28/2006	06090499	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.33	mg/L		F	0.019		valid
SPWEF	9/28/2006	06090499	7440-61-1	Uranium	N001	6.5	ug/L		F	0.02		J
SW018	7/10/2006	06080463	AM-241	Americium-241	N001	-0.00945	pCi/L	U	F	0.0224	0.00793	valid
SW018	7/10/2006	06080463	PU-239,240	Plutonium-239, 240	N001	0.00197	pCi/L	U	F	0.022	0.0116	valid
SW018	8/10/2006	06100522	AM-241	Americium-241	N001	0.00465	pCi/L	U	F	0.0257	0.0161	valid
SW018	8/10/2006	06100522	PU-239,240	Plutonium-239, 240	N001	0.0255	pCi/L		F	0.0163	0.0158	J
SW093	7/10/2006	06080452	AM-241	Americium-241	N001	0.0203	pCi/L	U	F	0.0209	0.0132	valid
SW093	7/10/2006	06080452	7440-41-7	Beryllium	N001	1	ug/L	U	F	1		valid
SW093	7/10/2006	06080452	7440-43-9	Cadmium	0001	0.1	ug/L	U	F	0.1		valid
SW093	7/10/2006	06080452	7440-47-3	Chromium	N001	1	ug/L	U	F	1		valid
SW093	7/10/2006	06080452	HARDNESS	Hardness	N001	476	mg/L		F	2		valid
SW093	7/10/2006	06080452	PU-239,240	Plutonium-239, 240	N001	0.00202	pCi/L	U	F	0.0226	0.00395	valid
SW093	7/10/2006	06080452	7440-22-4	Silver	0001	0.2	ug/L	U	F	0.2		valid
SW093	7/10/2006	06080452	U-234	Uranium-234	N001	2.05	pCi/L		F	0.0507	0.274	valid
SW093	7/10/2006	06080452	U-235+236	Uranium-235/236	N001	0.0481	pCi/L		F	0.0428	0.0377	J
SW093	7/10/2006	06080452	U-238	Uranium-238	N001	1.69	pCi/L		F	0.0539	0.232	valid
SW093	7/27/2006	06080463	AM-241	Americium-241	N001	0.0262	pCi/L		F	0.019	0.0161	J
SW093	7/27/2006	06080463	7440-41-7	Beryllium	N001	1	ug/L	U	F	1		J
SW093	7/27/2006	06080463	7440-43-9	Cadmium	0001	0.1	ug/L	U	F	0.1		valid
SW093	7/27/2006	06080463	7440-47-3	Chromium	N001	1	ug/L	U	F	1		J
SW093	7/27/2006	06080463	HARDNESS	Hardness	N001	403	mg/L		F	2		J
SW093	7/27/2006	06080463	PU-239,240	Plutonium-239, 240	N001	0.00698	pCi/L	U	F	0.0261	0.0102	valid
SW093	7/27/2006	06080463	7440-22-4	Silver	0001	0.2	ug/L	U	F	0.2		valid
SW093	7/27/2006	06080463	U-234	Uranium-234	N001	2.27	pCi/L		F	0.0648	0.167	valid
SW093	7/27/2006	06080463	U-235+236	Uranium-235/236	N001	0.0961	pCi/L		F	0.0547	0.0482	J
SW093	7/27/2006	06080463	U-238	Uranium-238	N001	1.79	pCi/L		F	0.069	0.147	valid
SW093	8/10/2006	06100552	AM-241	Americium-241	N001	0.0207	pCi/L	U	F	0.0281	0.0138	valid
SW093	8/10/2006	06100552	7440-41-7	Beryllium	N001	1	ug/L	U	F	1		valid
SW093	8/10/2006	06100552	7440-43-9	Cadmium	0001	0.11	ug/L	В	F	0.1		valid
SW093	8/10/2006	06100552	7440-47-3	Chromium	N001	1	ug/L	U	F	1		valid
SW093	8/10/2006	06100552	HARDNESS	Hardness	N001	514	mg/L		F	5		valid
SW093	8/10/2006	06100552	PU-239,240	Plutonium-239, 240	N001	0.0173	pCi/L	U	F	0.0211	0.0139	valid
SW093	8/10/2006	06100552	7440-22-4	Silver	0001	0.2	ug/L	U	F	0.2		valid
SW093	8/10/2006	06100552	U-234	Uranium-234	N001	3.64	pCi/L		F	0.0461	0.449	valid
SW093	8/10/2006	06100552	U-235+236	Uranium-235/236	N001	0.154	pCi/L		F	0.0391	0.046	valid
SW093	8/10/2006	06100552	U-238	Uranium-238	N001	3	pCi/L		F	0.049	0.376	valid

EXPLANATION

SAMPLE_ID

N00x = Sample was not filtered. 000x = Sample was filtered.

WATER_UNIT_OF_MEASURE

mg/L; ppm = milligrams per liter pCi/L = picocuries per liter ug/L = micrograms per liter

C = degrees celsius

mS/cm = milliSiemens per centimeter

LAB_QUALIFIERS

- * Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.

			LAB REQUISITION						LAB	SAMPLE	DETECTION	UNCER-	DATA VALIDATION	
	LOCATION_CODE	DATE SAMPLED	NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	QUALIFIERS	TYPE	LIMIT	TAINTY	QUALIFIERS	l
NTU = normal turbidity units				Increased detection limit due to required dilution.										
s.u. = standard pH units J				Estimated										
uS/cm = microSiemens per centimeter M				GFAA duplicate injection precision not met.										
umhos/cm = microSiemens per centimeter N				Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compund (TIC).										
			Р	> 25% difference in detected pesticide or Arochlor concentrations between 2 columns.										
S				S	Result determined by method of standard addition (MSA).									
SAMPLE_TYPE			U	Analytical result below detection limit.										
F = Field Sample			W	Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.										
	D = Duplicate			X	Laboratory defined (USEPA CL	_P organic) qι	alifier, see	case narr	ative.					
				Υ	Laboratory defined (USEPA CL	_P organic) qu	alifier, see	case narr	ative.					
				Z	Laboratory defined (USEPA CL	P organic) gu	alifier, see	case narr	ative.					

DATA_VALIDATION_QUALIFIERS

valid	Result is valid.
F	Low flow sampling method used.
G	Possible grout contamination, pH > 9.
J	Estimated value.
L	Less than 3 bore volumes purged prior to sampling
Q	Qualitative result due to sampling technique
R	Unusable result.
U	Parameter analyzed for but was not detected.
X	Location is undefined.
999	Validation not complete

Appendix B

Information for Composite Samples with Unavailable Data

Appendix B: Information for Composite Samples with Unavailable Data

Location	Sample Dates*	Status
GS01	4/11/06 ->	In Progress
GS03	1/5/06 - >	In Progress

^{*} Analytical results are reported with the start date of the composite sampling period

NSQ: non-sufficient quantity for analysis

> Composite sample end date to be determined

Appendix C Landfill Inspection Forms

PRESENT LANDFILL - MONITORING AND MAINTENANCE PROGRAM

	SU	UBSIDENCE / CONSC	DLIDATION	
REGION	EVIDENCE OF CRACKS?	EVIDENCE OF DEPRESSIONS?	EVIDENCE OF SINK HOLES?	OTHER (DESCRIBE BELOW)
TOP OF COVER – WEST	Yes 🙀 No	Yes 💹 No	☐ Yes 🔀 No	~ /A
TOP OF COVER - EAST	Yes No	☐ Yes 🗷 No	Yes 😧 No	NIA
COVER SIDESLOPE – NORTH	Yes 🗷 No	☐ Yes 🙀 No	Yes 😧 No	NIA
COVER SIDESLOPE – SOUTH	Yes 🔀 No	☐ Yes 😡 No	Yes 🔀 No	NIA
EAST FACE SLOPE - NORTH	Yes 🗷 No	Yes 🙀 No	Yes 🗶 No	NA
EAST FACE SLOPE - SOUTH	☐ Yes 🔀 No	Yes No	☐ Yes 🗷 No	NA
EAST FACE SLOPE - CENTRAL	☐ Yes 🔽 No	Yes 🗷 No	Yes 🗷 No	NIA
AST FACE SLOPE – NORTH SEEP*	Yes Vo	Yes 🗷 No	Yes No	NIA

^{*} AREA OF SEEP IS OUTSIDE OF LANDFILL COVER AND EAST OF THE COVER ANCHOR TRENCH

SLOPE STABILITY			
EVIDENCE OF CRACKS?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?	OTHER (DESCRIBE BELOW)	
Yes 🔀 No	☐ Yes 🔀 No	~ /k	
Yes 🗶 No	Yes 🙀 No	~/A	
Yes 🗷 No	☐ Yes 🗷 No	NIA	
Yes 🔣 No	☐ Yes 🔀 No	N/A	
☐ Yes 🗷 No	☐ Yes 🔀 No	NIA	
Yes 🔀 No	☐ Yes 🙀 No	NIA	
☐ Yes 🗷 No	Yes No	NA	
Yes 🗷 No	☐ Yes 🗷 No	NH	
		•	
	EVIDENCE OF CRACKS?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE? ☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No	

^{*} AREA OF SEEP IS OUTSIDE OF LANDFILL COVER AND EAST OF THE COVER ANCHOR TRENCH

TOP OF COVER - WEST ☐ Yes ☒ No <
TOP OF COVER - EAST
COVER SIDESLOPE - NORTH Yes No Yes No Yes No
COVER SIDESLOPE – SOUTH Yes No Yes No Yes No
EAST FACE SLOPE - NORTH Yes No Yes No Yes No
EAST FACE SLOPE - SOUTH Yes No Yes No Yes No
EAST FACE SLOPE - CENTRAL ☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No

	VEGETATION		
REGION	CONDITION OF GRASS	UNWANTED VEGETATION PRESENT*?	OTHER (DESCRIBE BELOW)
TOP OF COVER- WEST	God	Yes No	>1% CEDI 1
TOP OF COVER - EAST	Sperse 1600d	Yes No	
EAST FACE SLOPE - NORTH	Sparse / Good	Yes No	
EAST FACE SLOPE - SOUTH	Sparse / Good	☐ Yes ☐ No	
EAST FACE SLOPE - CENTRAL	Sparse /bead	Yes No	>1% CIDA I CEDI I
COVER SIDESLOPE – NORTH	Sporse / Good	Yes No	71% CFDI 1
COVER SIDESLOPE - SOUTH	Sperse / bood	Yes No	, , , , , , , , , , , , , , , , , , ,
VEGETATION-LINED PERIMETER CHANNEL – NORTH	Sparse / bood	Yes No	
VEGETATION-LINED PERIMETER CHANNEL – SOUTH	Sparse/bood	Yes No	
 Unwanted vegetation includes weeds and deep-rooting trees. 			
MAINTENANCE REQUIRED / COMMENTS			
Landfill cap is still ver-	· ch-	·	
	3 - 3		

SEEP TREATMENT SYSTEM			
REGION	EVIDENCE OF PLUGGING, OBSTRUCTIONS, OR EXCESS DEBRIS?	EVIDENCE OF CRACKS OR DETERIORATION?	OTHER (DESCRIBE BELOW)
GWIS INLET PIPES	☐ Yes 🕱 No	Yes 🗷 No	w/A
STRIP DRAIN INLET PIPE	☐ Yes 🗷 No	Yes 🔣 No	NA
NORTH MANHOLE OUTLET PIPE	☐ Yes 🗷 No	Yes No	NA
SOUTH MANHOLE OUTLET PIPE	☐ Yes ☑ No	Yes 🔀 No	N/A
TREATMENT UNIT	Yes 🖈 No	Yes No	ω/Λ
TREATMENT UNIT OUTLET PIPE	Yes 👿 No	☐ Yes 🗷 No	~/A
NORTH MANHOLE	☐ Yes 🗷 No	☐ Yes 🗔 No	N/A
SOUTH MANHOLE	☐ Yes 😡 No	Yes 🔀 No	NIA
TREATMENT UNIT GRATING	NA	☐ Yes ☑ No	WIA
MAINTENANCE REQUIRED / COM	MENTS looks good		

STORMWATEF	MANAGEMENT	STRUCTURES
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CHANNELS / LINING

STRUCTURE	EVIDENCE OF EXCESSIVE EROSION, GULLYING, SCOUR, OR UNDERMINING?	EVIDENCE OF SETTLEMENT/ SUBSIDENCE OR DEPRESSIONS?	EVIDENCE OF BREACHING OR BANK FAILURE?	EVIDENCE OF BURROWING ANIMALS?	EVIDENCE OF SEDIMENT BUILD-UP OR OTHER BLOCKAGE?	EVIDENCE OF LINING DETERIORATION, HOLES, RIPS, OR SEPARATION?	ÉVIDENCE OF LINING DISPLACEMENT?
DIVERSION BERM	☐ Yes 🗷 No	Yes 🗷 No	Yes No	☐ Yes 🗷 No	☐ Yes 😡 No	🗌 Yes 📐 No	☐ Yes 👿 No
VEGETATION-LINED PERIMETER CHANNEL – NORTH	☐ Yes 🕢 No	Yes 🙀 No	Yes 🗷 No	Yes 🔀 No	Yes 🙀 No	☐ Yes 🔀 No	Yes 🔽 No
VEGETATION-LINED PERIMETER CHANNEL – SOUTH	☐ Yes 🗷 No	Yes No	Yes 🖪 No	☐ Yes 🙀 No	Yes 🗶 No	☐ Yes 🗷 No	☐ Yes 🖈 No
RIPRAP-LINED PERIMETER CHANNEL	☐ Yes 🗷 No	Yes 🗷 No	Yes 🛦 No	Yes No	Yes 🗷 No	Yes 🛚 No	Yes No
C350-LINED EAST FACE	☐ Yes 🗷 No	Yes 🕢 No	Yes No	☐ Yes 🔀 No	Yes No	☐ Yes 🐼 No	Yes X No
EAST FACE RIPRAP CHANNEL – NORTH	☐ Yes 🔣 No	☐ Yes 🙀 No	Yes X No	Yes 📈 No	☐ Yes 🗷 No	☐ Yes 🔽 No	Yes 🗷 No
EAST FACE RIPRAP CHANNEL – SOUTH	Yes 🔣 No	Yes 🛭 No	Yes No	Yes No	Yes 🖈 No	Yes 🗷 No	
OTHER DEFICIENCIES?							
MAINTENANCE REQUIRED/C		good	shape.	The li	aing is	<+(11 ;~	god

STORMWATER MANAGEMENT STRUCTURES (CONTINUED)

OUTFALLS

CHECK EACH STRUCTURE FOR EXCESSIVE EROSION AND SEDIMENT DEPTH. IF SEDIMENT DEPTH IS COMPROMISING THE DESIGN CHARACTERISTICS, REMOVE SEDIMENT.

STRUCTURE	CONDITION / SEDIMENT DEPTH
DIVERSION BERM OUTFALL - NORTH	and I was
DIVERSION BERM OUTFALL - SOUTH	good / None
CULVERT 1 OUTFALL	acod / None
CULVERT 2 OUTFALL	accd / None
SOUTHWEST CULVERT OUTFALL	aged (None

CULVERTS

CHECK EACH STRUCTURE FOR BLOCKAGE, SURROUNDING CONDITIONS, BREACHING, SEDIMENT BUILD-UP, AND INLET/OUTLET CONDITIONS.

STRUCTURE	CONDITION
CULVERT I	good condition / None
CULVERT 2	good condition/ None
SOUTHWEST CULVERT	good condition / None
The state of the s	

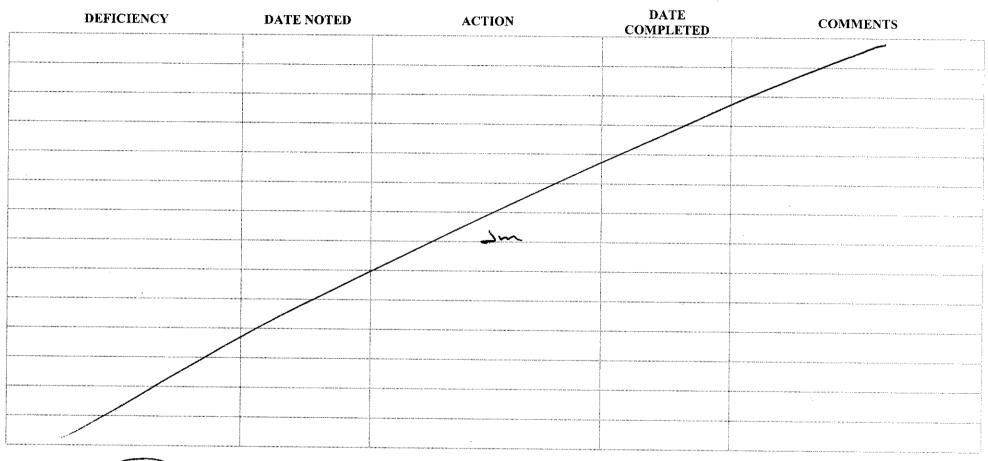
MAINTENANCE REQUIRED

Non	_	

		EROSI	ON CONTROL		
AREA			ADVEI	RSELY AFFECTING PLF?	
RUN-ON INTO PERIMETER CHANNEL – NORTH	Yes	⋈ No	COMMENT:	NA	
RUN-ON INTO PERIMETER CHANNEL – SOUTH	Yes	⋈ No	COMMENT:	~ IA	
NATURAL DRAINAGE FED BY CULVERT 1	Yes	⋈ No	COMMENT:	w/A	
NATURAL DRAINAGE FED BY NORTHEAST PERIMETER CHANNEL	Yes	⋈ No	COMMENT:	N/A	
NATURAL DRAINAGE FED BY RIPRAP	Yes	i≱No	COMMENT:	NA	
MAINTENANCE REQUIRED All of the draining	es 100	k go	ed.		

INSTITUTIONAL CONTROLS								
ITEM EVIDENCE OF EXCAVATION(S) OF COVER AND IMMEDIATE VICINITY OF COVER?	Yes	No	COMMENT:	N/A		neen een een een een een een een een ee		
EVIDENCE OF CONSTRUCTION OF ROADS, TRAILS ON COVER OR BUILDINGS?	☐ Yes	⋈ No	COMMENT:	NA				
EVIDENCE OF DRILLING OF WELLS OR USE OF GROUNDWATER?	Yes	M≥No	COMMENT:	NO CW Wel	الأسال	h- 50	. Alad whi	7
DISRUPTION OR DAMAGE OFSEEP TREATMENT SYSTEM?	☐ Yes	⋈ No	COMMENT:	NIA	, , , , , , , , , , , , , , , , , , , ,	<u> </u>		<i>)</i>
DAMAGE OR REMOVAL OF ANY SIGNAGE OR GROUNDWATER MONITORING WELLS?	Yes	₩ No	COMMENT:	~/A				
OTHER DEFICIENCIES?			٠.					

ACTION ITEMS



SIGNATURE: 7/28/06

 $L: |work| 57378 |Work| M\&M\ Plan| Final| Final\ Inspection\ Report. doc$

ORIGINAL LANDFILL - MONITORING AND MAINTENANCE PROGRAM

	St	BSIDENCE / CONSC	DLIDATION	
REGION	EVIDENCE OF CRACKS?	EVIDENCE OF DEPRESSIONS?	EVIDENCE OF SINK HOLES?	OTHER (DESCRIBE BELOW)
COVER – WEST	Yes 🗶 No	☐ Yes 🗷 No	Yes No	~ 1A
COVER – EAST	Yes 🗷 No	☐ Yes 🙀 No	☐ Yes 🗶 No	~ /A
BUTTRESS FILL	☐ Yes 🗷 No	Yes 🗷 No	Yes No	NIA
DIVERSION BERM I	Yes 🗷 No	Yes 🗷 No	Yes 🔀 No	N/A
DIVERSION BERM 2	Yes 🗷 No	☐ Yes 🗷 No	Yes 🗶 No	N/A
DIVERSION BERM 3	☐ Yes 🔀 No	Yes 🗷 No	☐ Ycs 🔀 No	w/A
DIVERSION BERM 4	Yes 🖪 No	☐ Yes 🗷 No	☐ Yes 🗷 No	N/A
DIVERSION BERM 5	Yes No	Yes 🗷 No	Yes 🗷 No	N/A
DIVERSION BERM 6	Yes No	Yes 🗷 No	☐ Yes 🗷 No	N/A
DIVERSION BERM 7	Yes No	Yes No	Yes 🔀 No	Small depression approxi
NANCE REQUIRED / COMMEN	ITS	<u> </u>		100 gards west of the

	SLOPE STAB	ILITY	
REGION	EVIDENCE OF SEEPS?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?
COVER – WEST	☐ Yes ☐ No	Yes 🙀 No	No
COVER – EAST	☐ Yes ☐ No	Yes No	NO
BUTTRESS FILL SIDESLOPE	☐ Yes 🔀 No	☐ Yes 🔀 No	No
WEST PERIMETER CHANNEL SIDESLOPES	Yes No	Yes No	No
EAST PERIMETER CHANNEL SIDESLOPES	☐ Yes 🔀 No	☐ Yes 🗷 No	NO
COVER SEEPS (IF PRESENT)	Yes No	☐ Yes ☑ No	No
TENANCE REQUIRED/COMMENTS	equated at this	time.	





COVER - WEST Yes ⋈ No No Yes ⋈ No No Yes ⋈ No No <	REGION	EVIDENCE OF SOIL DEPOSITION OR EROSION?	EVIDENCE OF EROSION RILLS/GULLIES?	EVIDENCE OF BURROWING	OTHER
COVER - EAST Yes No Yes No Yes No No NA BUTTRESS FILL Yes No Yes No Yes No No NA BUTTRESS FILL SIDESLOPE Yes No Yes No Yes No No NA TENANCE REQUIRED / COMMENTS	COVER – WEST	☐ Yes 🔀 No			· · · · · · · · · · · · · · · · · · ·
BUTTRESS FILL Yes No Yes No Yes No N/A BUTTRESS FILL SIDESLOPE Yes No Yes No N/A ITENANCE REQUIRED / COMMENTS	COVER – EAST	☐ Yes 🗶 No	Yes 🗷 No	The state of the s	NEW ALTERNATION OF THE PROPERTY OF THE PROPERT
BUTTRESS FILL SIDESLOPE Yes No Yes No Yes No NA ITENANCE REQUIRED / COMMENTS	BUTTRESS FILL	Yes 🛮 No	Yes 🛭 No		
ITENANCE REQUIRED / COMMENTS	BUTTRESS FILL SIDESLOPE	Yes No	Yes 🛭 No	11 Comment of the second of th	William Committee of the Committee of th
	ITENANCE REQUIRED / COMMEN	NTS			
	None				

,	·	Moth (ux Ex	raluation— J	uly 24, 20	OG
OLF		VEGETATION		Indu Pritek	'el
REGION	CONDITION OF GRASS	UNWANTED VEGETATION PRESENT*?	PERCENTAGE OF GRASS VERSUS BARE GROUND?	PERCENTAGE OF UNWANTED VEGETATION?	
COVER- WEST	good spouse	Yes No	15% vea	<3.0%	LIDA1, CEDI1 CIAR1, BRTE1
COVER - EAST	5Raise	Yes No	5% Vea	< 1.0%	SAIBI, BRTE
DIVERSION BERM 1	good	Yes No	30% Veq	41.0%	CEPI1, BRTE
DIVERSION BERM 2	good-on sports of sold	☑ Yes ☐ No	45% VEG	< 1.0%	CIAR1, CEDI1 BRTE1
DIVERSION BERM 3	sparse	Yes No	10% veg	< 1.0%	SAIB1
DIVERSION BERM 4	Sparse	Yes No	5% V19	0%	
DIVERSION BERM 5	Sparse	X Yes No	10°10 25% Veg	41.0%	BRTE1
DIVERSION BERM 6	sparse,	X Yes ☐ No	10% veq	41.0%	SAIB1
DIVERSION BERM 7	sparse moderat	Yes No	10% vea	0%	
WEST PERIMETER CHANNEL	good	X Yes No	70% yea	41.0%	BRTE1, SAIB1 CEDIL, CANUI
EAST PERIMETER CHANNEL	good	Yes No	70% veg	41.0%	SAIBL, COAR

* Unwanted vegetation includes weeds and deep-rooting trees.

UPPER BUTTERESS FILL SIDESLOPE

LOWER BUTTRESS FILL SIDESLPOE

MAINTENANCE REQUIRED / COMMENTS			
Drainage area on west end of over to the west perimeter	burm 3 not	drainina	all the isau
over to the west perimeter	Channel.		
<u> </u>			1/
		211)	1/1/20

Yes No

Yes No

< 1.0%

X 1.0%

BRTE1, SAIB1, BRTE1, CEDT1

ST	\mathbf{ORMW}	TER	MANA	GEMENT	STRUCTURES
_	♥ ■ ₹ 1 ↑ ↑ ↑		11 #4 M1 14 M		

CHANNELS / LINING

STRUCTURE	EVIDENCE OF EXCESSIVE EROSION, GULLYING, SCOUR, OR UNDERMINING?	EVIDENCE OF SETTLEMENT/ SUBSIDENCE OR DEPRESSIONS?	EVIDENCE OF BREACHING OR BANK FAILURE?	EVIDENCE OF BURROWING ANIMALS?	EVIDENCE OF SEDIMENT BUILD-UP OR OTHER BLOCKAGE?	EVIDENCE OF LINING DETERIORATION, HOLES, RIPS, OR SEPARATION?	EVIDENCE OF LINING DISPLACEMENT?
DIVERSION BERM I	Yes 🔀 No	Yes 🔀 No	Yes 🗷 No	☐ Yes 🖼 No	Yes No	☐ Yes 🔀 No	Yes 🗶 No
DIVERSION BERM 2	Yes 🗷 No	☐ Yes 🕢 No	Yes 🛛 No	Yes No	Yes No	Yes 🗶 No	Yes 🙀 No
DIVERSION BERM 3	☐ Yes 🖊 No	Yes 🛮 No	Yes 🔀 No	Yes 🗷 No	Yes No	Yes No	☐ Yes 🔀 No
DIVERSION BERM 4	Yes 💹 No	Yes 🛭 No	Yes 🔀 No	Yes 🐼 No	Yes No	Yes X No	Yes 🔀 No
DIVERSION BERM 5	Yes 🗷 No	Yes 🛭 No	Yes 🔀 No	Yes 🗶 No	Yes No	Yes No	Yes No
DIVERSION BERM 6	☐ Yes 🔣 No	Yes 🗶 No	☐ Yes 🙀 No	☐ Yes 🛣 No	Yes No	Yes 🗶 No	Yes 🕢 No
DIVERSION BERM 7	☐ Yes 🗷 No	Yes 🛭 No	Yes 🗷 No	Yes 🗷 No	🔀 Yes 🗌 No	Yes 🗶 No	Yes 🙀 No
CHECK DAMS	☐ Yes 🔀 No	Yes 🗷 No	Yes 🔀 No	Yes 🗷 No	Yes 🗶 No	Yes 🗷 No	Yes 🙀 No
WEST PERIMETER CHANNEL	☐ Yes 🔀 No	Yes 🕢 No	Yes No	Yes 🗶 No	☐ Yes 🗷 No	Yes 🗶 No	Yes 🗶 No
EAST PERIMETER CHANNEL	☐ Yes 🗷 No	Yes 🗷 No	Yes 🗷 No	Yes No	Yes No	Yes No	☐ Yes 🙀 No
OTHER DEFICIENCIES?							
Removed stre	w block in				<u>~51,2,</u>	3,4,5,6,c	\
the west	Perimeter	chann	PAGE 5 OF 9	7			

STORMWATER MANAGEMENT STRUCTURES (CONTINUED)

OUTFALLS

CHECK EACH STRUCTURE FOR EXCESSIVE EROSION AND SEDIMENT DEPTH. IF SEDIMENT DEPTH IS COMPROMISING THE DESIGN CHARACTERISTICS, REMOVE SEDIMENT.

	CONDITION / SEDIMENT DEPTH
DIVERSION BERM	
OUTFALL !	Good / None
DIVERSION BERM	^ /
OUTFALL 2	Good / None
DIVERSION BERM	
OUTFALL 3	Good / None
DIVERSION BERM	
OUTFALL 4	Good / None
DIVERSION BERM	
OUTFALL 5	Good / None
DIVERSION BERM	
OUTFALL 6	Good / None
DIVERSION BERM	-
OUTFALL 7	Good /None
WEST PERIMETER CHANNEL OUTFALL	Good / None
EAST PERIMETER CHANNEL OUTFALL	Good / None
FRENCH DRAIN OUTFALL (SÍD)	Good / None

None

EROSION CONTROL					
AREA			ADVERS	SELY AFFECTING OLF?	
NORTH OF THE ORIGINAL LANDFILL	Yes	⋈ No	COMMENT:	W 1A	The control of the co
WEST OF THE WEST PERIMETER CHANNEL	Yes	⋈ No	COMMENT:	NIA	
EAST OF THE EAST PERIMETER CHANNEL	Yes	⋈ No	COMMENT:	NIA	
NORTH OF WOMAN CREEK	☐ Yes	⋈ No	COMMENT:	NIA	
MAINTENANCE REQUIRED					
	~···				

		INSTIT	TUTIONAL CO	NTROLS
ITEM				
EVIDENCE OF EXCAVATION(S) OF COVER AND IMMEDIATE VICINITY OF COVER?	Yes	⊠ No	COMMENT:	Nothing new after Seep 7 investiga
EVIDENCE OF CONSTRUCTION OF ROADS, TRAILS ON COVER OR BUILDINGS?	☐ Yes	⋈ No	COMMENT:	None
EVIDENCE OF DRILLING OF WELLS OR USE OF GROUNDWATER?	☐ Yes	⋈ No	COMMENT:	NO GW wells will be surpled this mo
DAMAGE OR REMOVAL OF ANY SIGNAGE OR GROUNDWATER MONITORING WELLS?	Yes	⋈ No	COMMENT:	None
OTHER DEFICIENCIES?				
None.				
	, <u>.</u>			

ACTION ITEMS

DEFICIENCY	DATE NOTED	ACTION	DATE COMPLETED	COMMENTS
Straw accumulation	7/28/06		7/28/06	Name
in diversion berms		diversion bern chann	els	
CONTROL OF A STATE OF THE STATE		;		
	The state of the s			
	The second secon			
10-10-10-11-11-11-11-11-11-11-11-11-11-1				To a control of the Advance of the control of the c

SIGNATURE: Acm. DATE: 7/28/06

PRESENT LANDFILL - MONITORING AND MAINTENANCE PROGRAM

EVIDENCE OF CRACKS?	EVIDENCE OF DEPRESSIONS?	EVIDENCE OF SINK HOLES?	OTHER (DESCRIBE BELOW)
Yes 🛚 No	Yes No	☐ Yes 💹 No	N/A
Yes 🗷 No	Yes No	☐ Yes 🔀 No	N/A
Yes No	Yes 🗷 No	Yes No	N/A
Yes 🗷 No	☐ Yes 🔀 No	Yes No	N/A
Yes X No	☐ Yes 🔀 No	Yes No	N/A
Yes No	Yes X No	Yes 🗷 No	NIA
Yes No	Yes X No	Yes No	NIA
Yes No	Yes 🔀 No	Yes No	NIA
	CRACKS? ☐ Yes No ☐ Yes No	CRACKS? DEPRESSIONS? ☐ Yes No ☐ Yes No ☐ Yes ☑ No ☐ Yes ☑ No	CRACKS? DEPRESSIONS? HOLES? Yes No Yes No Yes No Yes No

^{*} AREA OF SEEP IS OUTSIDE OF LANDFILL COVER AND EAST OF THE COVER ANCHOR TRENCH

SLOPE STABILITY						
EVIDENCE OF CRACKS?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?	OTHER (DESCRIBE BELOW)				
☐ Yes 🗷 No	Yes 🗷 No	w/A				
☐ Yes 💌 No	Yes No	w/A				
☐ Yes 🔣 No	Yes No	w/A				
☐ Yes 🗷 No	☐ Yes 🗷 No	N/A				
☐ Yes 🙀 No	Yes No	N/A				
☐ Yes 🔣 No	Yes 🗷 No	NA				
☐ Yes 🗷 No	Yes 🔣 No	NA				
☐ Yes 🐼 No	☐ Yes 🔀 No	N/A				
	EVIDENCE OF CRACKS? Yes № No Yes № No	EVIDENCE OF CRACKS? EVIDENCE OF BLOCK OR CIRCULAR FAILURE? ☐ Yes ☑ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No				

^{*} AREA OF SEEP IS OUTSIDE OF LANDFILL COVER AND EAST OF THE COVER ANCHOR TRENCH

SOIL COVER						
† REGION	EVIDENCE OF SOIL DEPOSITION OR EROSION?	EVIDENCE OF EROSION RILLS/GULLIES?	EVIDENCE OF BURROWING ANIMALS?	OTHER (DESCRIBE BELOW)		
TOP OF COVER – WEST	Yes 🕟 No	Yes 🗶 No	Yes X No	N/A		
TOP OF COVER – EAST	☐ Yes 🔀 No	☐ Yes 🗷 No	Yes No	w/A		
COVER SIDESLOPE - NORTH	☐ Yes 🔀 No	Yes 🔀 No	Yes No	NA		
COVER SIDESLOPE - SOUTH	☐ Yes 🔀 No	Yes 🗷 No	Yes No	NIA		
EAST FACE SLOPE - NORTH	☐ Yes 🙀 No	Yes 🗷 No	☐ Yes 🔀 No	N/A		
EAST FACE SLOPE - SOUTH	☐ Yes 💹 No	Yes 🔀 No	Yes No	w/A		
EAST FACE SLOPE - CENTRAL	Yes No	Yes 🗷 No	Yes No	w/A		
INTENANCE REQUIRED / COMMEN	NTS					

	VEGETATION		
REGION	CONDITION OF GRASS	UNWANTED VEGETATION PRESENT*?	OTHER (DESCRIBE BELOW)
TOP OF COVER- ¹ WEST	Good	Yes No	>1% CEDI 1
TOP OF COVER - EAST	bad	☐ Yes 📈 No	an announce and an announce an
EAST FACE SLOPE - NORTH	Good	☐ Yes 🗷 No	
EAST FACE SLOPE - SOUTH	6 ccd	Yes 🔀 No	
EAST FACE SLOPE - CENTRAL	Gæd	Yes No	>10/ /+NA / /5NT)
COVER SIDESLOPE – NORTH	Good	✓ Yes ☐ No	>1% CIDA 1, CEDI1
COVER SIDESLOPE – SOUTH	bood	☐ Yes 🔀 No	
VEGETATION-LINED PERIMETER CHANNEL - NORTH	God	☐ Yes 😡 No	
VEGETATION-LINED PERIMETER CHANNEL - SOUTH	bad	☐ Yes 🔀 No	
* Unwanted vegetation includes weeds and deep-rooting trees.		To the second se	
MAINTENANCE REQUIRED / COMMENTS			•
Cap is dry.			
1			

	S	EEP TREATMENT SYSTEM	
REGION	EVIDENCE OF PLUGGING, OBSTRUCTIONS, OR EXCESS DEBRIS?	EVIDENCE OF CRACKS OR DETERIORATION?	OTHER (DESCRIBE BELOW)
GWIS INLET PIPES	☐ Yes ☑ No	Yes 🕟 No	And the state of t
STRIP DRAIN INLET PIPE	Yes 📈 No	Yes No	N/A
ORTH MANHOLE OUTLET PIPE	☐ Yes 🕢 No	☐ Yes 📈 No	The transfer of the transfer o
SOUTH MANHOLE OUTLET PIPE	Yes No	Yes No	N/A
TREATMENT UNIT	Yes 💹 No	Yes No	NIA
REATMENT UNIT OUTLET PIPE	Yes 🔀 No	Yes No	N/A
NORTH MANHOLE	Yes 🗶 No	☐ Yes ☑ No	NIA
SOUTH MANHOLE	Yes No	Yes 🗷 No	2/14
TREATMENT UNIT GRATING	NA	☐ Yes ☑ No	~/A
AINTENANCE REQUIRED / COMM	^		•

STORMWATER MANAGEMENT STRUCTURES

CHANNELS / LINING

STRUCTURE	EVIDENCE OF EXCESSIVE EROSION, GULLYING, SCOUR, OR UNDERMINING?	EVIDENCE OF SETTLEMENT/ SUBSIDENCE OR DEPRESSIONS?	EVIDENCE OF BREACHING OR BANK FAILURE?	EVIDENCE OF BURROWING ANIMALS?	EVIDENCE OF SEDIMENT BUILD-UP OR OTHER BLOCKAGE?	EVIDENCE OF LINING DETERIORATION, HOLES, RIPS, OR SEPARATION?	EVIDENCE OF LINING DISPLACEMENT
DIVERSION BERM	Yes 🗶 No	☐ Yes 🔀 No	Yes 🗷 No	Yes 🙀 No	Yes 🗶 No	☐ Yes 🙀 No	Yes 🗷 No
VEGETATION-LINED PERIMETER CHANNEL – NORTH	Yes 🗷 No	Yes 🗷 No	Yes No	Yes No	Yes 🗷 No	Yes No	Yes No
VEGETATION-LINED PERIMETER CHANNEL - SOUTH	☐ Yes 🗷 No	Yes 🗷 No	Yes 🗶 No	Yes 🗷 No	Yes No	Yes No	Yes No
RIPRAP-LINED PERIMETER CHANNEL	☐ Yes 🗷 No	Yes X No	Yes 🛚 No	Yes No	Yes No	☐ Yes 🗷 No	Yes No
C350-LINED EAST FACE	☐ Yes 🗷 No	Yes 🗷 No	Yes No	Yes No	Yes X No	Yes 🗷 No	Yes 🗷 No
EAST FACE RIPRAP CHANNEL – NORTH	Yes 🗶 No	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No
EAST FACE RIPRAP CHANNEL – SOUTH	☐ Yes 🗷 No	Yes No	Yes 🗷 No	Yes No	Yes 🗷 No	Yes No	1 cs [k] 140
OTHER DEFICIENCIES?						h	
MAINTENANCE REQUIRED / CO	OMMENTS	good co.	-dition				
				-			

STORMWATER MANAGEMENT STRUCTURES (CONTINUED)

OUTFALLS

CHECK EACH STRUCTURE FOR EXCESSIVE EROSION AND SEDIMENT DEPTH. IF SEDIMENT DEPTH IS COMPROMISING THE DESIGN CHARACTERISTICS, REMOVE SEDIMENT.

STRUCTURE	CONDITION / SEDIMENT DEPTH
DIVERSION BERM OUTFALL - NORTH	Good / None
DIVERSION BERM OUTFALL - SOUTH	had I War
CULVERT 1 OUTFALL	Grand / No.
CULVERT 2 OUTFALL	
SOUTHWEST CULVERT OUTFALL	God / None
	AND THE PROPERTY OF THE PROPER

CULVERTS

CHECK EACH STRUCTURE FOR BLOCKAGE, SURROUNDING CONDITIONS, BREACHING, SEDIMENT BUILD-UP, AND INLET/OUTLET CONDITIONS.

STRUCTURE	CONDITION
CULVERT 1	Gad / None
CULVERT 2	Good / No-c
SOUTHWEST CULVERT	Good / None
A CONTRACT OF THE CONTRACT OF	

MAINTENANCE REQUIRED	
Abne	
·	

EROSION CONTROL					
AREA			ADVERSELY AFFECTING PLF?		
RUN-ON INTO PERIMETER CHANNEL – NORTH	Yes	No No	COMMENT		
RUN-ON INTO PERIMETER CHANNEL – SOUTH	Yes	No No	COMMENT: W/A		
NATURAL DRAINAGE FED BY CULVERT 1	Yes	I N₀	COMMENT: V/A		
NATURAL DRAINAGE FED BY NORTHEAST PERIMETER CHANNEL	Yes	✓No	COMMENT: WIA		
NATURAL DRAINAGE FED BY RIPRAP	Yes	No.	COMMENT: N/A		
MAINTENANCE REQUIRED All of the drainage	د د)د	_ داب	good shope		

		INST	ITUTIONAL CO	ONTROLS
ITEM				
EVIDENCE OF EXCAVATION(S) OF COVER AND IMMEDIATE VICINITY OF COVER?	Yes	□ No	COMMENT:	Monuments were installed in mid Augu
EVIDENCE OF CONSTRUCTION OF ROADS, TRAILS ON COVER OR BUILDINGS?	Yes	No No	COMMENT:	ronuments were installed in mid Augu
EVIDENCE OF DRILLING OF WELLS OR USE OF GROUNDWATER?	Yes	☐ No	COMMENT:	
DISRUPTION OR DAMAGE OFSEEP TREATMENT SYSTEM?	Yes	N₀	COMMENT:	LW wells were sumpled on 8/21 + 8/30
DAMAGE OR REMOVAL OF ANY SIGNAGE OR GROUNDWATER MONITORING WELLS?	Yes	⋈ No	COMMENT:	
OTHER DEFICIENCIES?			And Andrews (Control of the Control	
			-	

ACTION ITEMS

DEFICIENCY	DATE NOTED	ACTION	DATE	COMMENTS
			COMPLETED	CONTINUE
		A Marie and Hard Marie and Hard Marie and Mari		
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SIGNATURE An DATE: 8/21/06

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ORIGINAL LANDFILL - MONITORING AND MAINTENANCE PROGRAM

	SU	UBSIDENCE / CONSC	DLIDATION	
REGION	EVIDENCE OF CRACKS?	EVIDENCE OF DEPRESSIONS?	EVIDENCE OF SINK HOLES?	OTHER (DESCRIBE BELOW)
COVER – WEST	☐ Yes 🗷 No	Yes X No	☐ Yes 🗷 No	wik
COVER – EAST	☐ Yes 🗷 No	Yes X No	Yes No	N/A
BUTTRESS FILL	☐ Yes 🗷 No	Yes No	Yes No	W/A
DIVERSION BERM 1	☐ Yes 😡 No	☐ Yes 🗷 No	Yes No	NIA
DIVERSION BERM 2	Yes 🗷 No	Yes 🔀 No	Yes No	NIA
DIVERSION BERM 3	☐ Yes 🗷 No	Yes 🔀 No	Yes No	NIA
DIVERSION BERM 4	☐ Yes 🗷 No	Yes 🔀 No	☐ Yes 🗷 No	NA
DIVERSION BERM 5	☐ Yes 🗷 No	Yes 🗷 No	☐ Yes 🔀 No	- 1/A
DIVERSION BERM 6	Yes 🗷 No	Yes 🗷 No	Yes X No	NIA
DIVERSION BERM 7	☐ Yes ☒ No	Yes No	☐ Yes 🔀 No	and days the state of the state
NANCE REQUIRED / COMME	NTS	niin maanaa aa a	and an overland the state of th	Small depression = 100 west of channel #

	ILITY	
EVIDENCE OF SEEPS?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?
¥ Yes □ No	☐ Yes 🙀 No	No
¥ Yes □ No	Yes No	No
☐ Yes 🙀 No	Yes 🗷 No	No
Yes No	Yes 🔀 No	NO
☐ Yes 😧 No	Yes 🔀 No	No
¥ Yes □ No.	Yes No	No
s togethed at	this time.	
	Yes No	EVIDENCE OF SEEPS? CIRCULAR FAILURE? ☑ Yes ☐ No ☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No ☑ Yes ☐ No ☐ Yes ☑ No ☑ Yes ☐ No ☐ Yes ☑ No

		SOIL COVE	}	
REGION	EVIDENCE OF SOIL DEPOSITION OR EROSION?	EVIDENCE OF EROSION RILLS/GULLIES?	EVIDENCE OF BURROWING ANIMALS?	OTHER (DESCRIBE BELOW)
COVER – WEST	☐ Yes 🗶 No	Yes 🗷 No	☐ Yes 🗷 No	NA
COVER – EAST	☐ Yes 🗷 No	Yes 🗷 No	Yes 🗷 No	NIA
BUTTRESS FILL	☐ Yes 🗷 No	☐ Yes 🗷 No	Yes 🗷 No	NH
BUTTRESS FILL SIDESLOPE	☐ Yes 🗷 No	Yes 🔀 No	Yes No	N/A
NTENANCE REQUIRED / COMME	NTS			
- Wares				
	· -			

REGION	CONDITION OF GRASS	UNWANTED VEGETATION PRESENT*?	PERCENTAGE OF GRASS VERSUS BARE GROUND?	PERCENTAGE OF UNWANTED VEGETATION?
COVER- WEST *		Yes No		
COVER - EAST		Yes No		
DIVERSION BERM 1		Yes No		
DIVERSION BERM 2		Yes No		
DIVERSION BERM 3		Yes No		de consequence (and a consequence of the consequenc
DIVERSION BERM 4		Yes No	The Bull the Hillings and American III and the business of the Bull the Bu	·
DIVERSION BERM 5		Yes No		
DIVERSION BERM 6		Yes No		and the second control of the second control
DIVERSION BERM 7	-	Yes No		
WEST PERIMETER CHANNEL		Yes No		
EAST PERIMETER CHANNEL		Yes No		
PER BUTTERESS FILL SIDESLOPE		Yes No	N - 4	
WER BUTTRESS FILL SIDESLPOE		Yes No		The state of the s
ed vegetation includes weeds and deep-rooting	g trees.			and the second

STORMWATER MANAGEMENT STRUCTURES	ES
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CHANNELS / LINING

STRUCTURE	EVIDENCE OF EXCESSIVE EROSION, GULLYING, SCOUR, OR UNDERMINING?	EVIDENCE OF SETTLEMENT/ SUBSIDENCE OR DEPRESSIONS?	EVIDENCE OF BREACHING OR BANK FAILURE?	EVIDENCE OF BURROWING ANIMALS?	EVIDENCE OF SEDIMENT BUILD-UP OR OTHER BLOCKAGE?	EVIDENCE OF LINING DETERIORATION, HOLES, RIPS, OR SEPARATION?	EVIDENCE OF LINING DISPLACEMENT?	
DIVERSION BERM I	☐ Yes 🗷 No	Yes 😡 No	Yes 🗶 No	☐ Yes 🙀 No	Yes No	Yes X No	Yes No	
DIVERSION BERM 2	Yes 💹 No	☐ Yes 🗶 No	Yes X No	☐ Yes 🙀 No	Yes No	Yes No	Yes No	
DIVERSION BERM 3	Yes 📈 No	Yes 🔀 No	Yes 🗶 No	Yes 🗶 No	Yes No	Yes 😿 No	Yes X No	
DIVERSION BERM 4	☐ Yes 😿 No	Yes 🗶 No	Yes No	Yes No	Yes No	Yes No	Yes X No	
DIVERSION BERM 5	Yes 🔀 No	Yes 🔀 No	Yes X No	Yes No	Yes No	Yes X No	Yes X No	
DIVERSION BERM 6	Yes 🗷 No	Yes X No	Yes X No	Yes No	Yes No	Yes M No	Yes No	
DIVERSION BERM 7	Yes 🗶 No	Yes X No	Yes X No	Yes No	Yes No	Yes No	Yes No	
CHECK DAMS	Yes X No	Yes X No	Yes X No	Yes No	Yes No	Yes X No		
WEST PERIMETER CHANNEL	Yes X No	Yes X No	Yes No	Yes 🔀 No	Yes No	Yes X No	Yes No	
EAST PERIMETER CHANNEL	Yes 🔀 No	Yes No	Yes X No	Yes 🔀 No	Yes No	Yes No	Yes No	
OTHER DEFICIENCIES?								
MAINTENANCE REQUIRED/COMMENTS Removed Straw From diversion berms 1,2,3,4,5,6,+7. We will Landings to mark to the content of								
Parimeter Channel.								

PAGE 5 OF 9

STORMWATER MANAGEMENT STRUCTURES (CONTINUED)

OUTFALLS

CHECK EACH STRUCTURE FOR EXCESSIVE EROSION AND SEDIMENT DEPTH. IF SEDIMENT DEPTH IS COMPROMISING THE DESIGN CHARACTERISTICS, REMOVE SEDIMENT.

STRUCTURE	CONDITION / SEDIMENT DEPTH
DIVERSION BERM	
OUTFALL	
DIVERSION BERM	and the same of th
OUTFALL 2	
DIVERSION BERM	
OUTFALL 3	Correl /None
DIVERSION BERM	
OUTFALL 4	(1 / 1)
DIVERSION BERM	Cocd / None
OUTFALL 5	board / Non.
DIVERSION BERM	
OUTFALL 6	Good / None
DIVERSION BERM	Good/None
OUTFALL 7	Good No-e
WEST PERIMETER CHANNEL OUTFALL	
	Good / None
EAST PERIMETER CHANNEL OUTFALL	
	Good None
FRENCH DRAIN OUTFALL (SID)	
	bood/None

OTHER DEFICIENCIES?	
- Name.	
MAINTENANCE REQUIRED / COMMENTS	
None	

		EROSIC	ON CONTROL		
AREA			ADVERS	ELY AFFECTING OLF?	
NORTH OF THE ORIGINAL LANDFILL	Yes	№ No	COMMENT:		
WEST OF THE WEST PERIMETER CHANNEL	Yes	⋉ No	COMMENT:	~ N/A ~ N/A	AMARKA, Australia
EAST OF THE EAST PERIMETER CHANNEL	Yes	∡ No	COMMENT;		
NORTH OF WOMAN CREEK	Yes	⋈ No	COMMENT:	NIA	
MAINTENANCE REQUIRED			An Charles of Marie Charles and Charles an		
None	·				
					—

		INSTI	TUTIONAL CO	NTROLS		· · · · · · · · · · · · · · · · · · ·		
ITEM							<u> </u>	
EVIDENCE OF EXCAVATION(S) OF COVER AND IMMEDIATE VICINITY OF COVER?	Yes	∠ No	COMMENT:		entre the defense of the second se	VIII III II I	AND THE PROPERTY OF THE PROPER	
EVIDENCE OF CONSTRUCTION OF ROADS, TRAILS ON COVER OR BUILDINGS?	☐ Yes	№ No	COMMENT:		The AMEL And have a signal by Articol VIII II I	The state of the s		WIA 1-1-1 In more manager springs at
EVIDENCE OF DRILLING OF WELLS OR USE OF GROUNDWATER?	∠ Yes	□ No	COMMENT:	cw wells			0	2-, /
DAMAGE OR REMOVAL OF ANY SIGNAGE OR GROUNDWATER MONITORING WELLS?	Yes	No.	COMMENT:			3445128		/31/00
OTHER DEFICIENCIES?		· · · · · · · · · · · · · · · · · · ·					homografi (1938 III Siddhill Alfalda (1930-1937) 47 An Alf Ind Albara	
None	······································							
	<u> </u>				·			
	·							

ACTION ITEMS

DEFICIENCY	DATE NOTED	ACTION	DATE COMPLETED	COMMENTS
Slight crosion above 1 Seep # 4	4/14/06	Installed erosion mot	8/18/06	Pepair looks good
			COMPLETE THE SECOND STATE OF THE SECOND STATE	
			And the little to the second s	
	NOTE THE REST OF T		. Ed. taaliin in interior taa in interior taa	
		A CONTRACTOR OF THE PROPERTY O		PARTY CARRY DAMES HE SHE HERE HERE AND

SIGNATURE: 12,106

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PRESENT LANDFILL - MONITORING AND MAINTENANCE PROGRAM

INSPECTION FORM

		JBSIDENCE / CONSC		
REGION	EVIDENCE OF CRACKS?	EVIDENCE OF DEPRESSIONS?	EVIDENCE OF SINK HOLES?	OTHER (DESCRIBE BELOW)
TOP OF COVER – WEST	☐ Yes 🔀 No	Yes 🗶 No	☐ Yes 😧 No	NIA
TOP OF COVER – EAST	Yes 😧 No	Yes 🗶 No	Yes 🗶 No	N/A-
COVER SIDESLOPE - NORTH	Yes X No	Yes 🗷 No	Yes X No	NA
COVER SIDESLOPE – SOUTH	Yes 🙀 No	Yes X No	Yes 🗷 No	NIA
EAST FACE SLOPE - NORTH	Yes X No	Yes 🗷 No	Yes 🗶 No	NIA
EAST FACE SLOPE - SOUTH	☐ Yes 🗶 No	Yes X No	Yes No	~/A
EAST FACE SLOPE - CENTRAL	Yes 🗓 No	☐ Yes 🖟 No	Yes No	~1A
EAST FACE SLOPE – NORTH SEEP*	Yes 🖟 No	☐ Yes 🗶 No	☐ Yes 🗷 No	w IA

^{*} AREA OF SEEP IS OUTSIDE OF LANDFILL COVER AND EAST OF THE COVER ANCHOR TRENCH

	ICE OF BLOCK OR	OTHER
	ULAR FAILURE?	OTHER (DESCRIBE BELOW)
es 🔀 No	Yes 🗶 No	۸۱ بد
es 💹 No	Yes 🗶 No	
es 🔣 No	Yes X No	NIA
es 🔀 No	Yes X No	~/A
es 🛛 No	Yes 🗷 No	NIA
es 🛛 No	Yes No	NA
es 💹 No	Yes X No	NIA
es 🛮 No	Yes No	NA
	es No Ces	es

^{*} AREA OF SEEP IS OUTSIDE OF LANDFILL COVER AND EAST OF THE COVER ANCHOR TRENCH

		SOIL COVE	₹.	
REGION	EVIDENCE OF SOIL DEPOSITION OR EROSION?	EVIDENCE OF EROSION RILLS/GULLIES?	EVIDENCE OF BURROWING ANIMALS?	OTHER (DESCRIBE BELOW)
TOP OF COVER - WEST	☐ Yes 🔀 No	Yes 🗶 No	Yes 👿 No	NA
TOP OF COVER – EAST	☐ Yes 🔀 No	Yes 🗶 No	Yes 🗷 No	N 1A-
COVER SIDESLOPE – NORTH	☐ Yes 🗷 No	Yes 🔀 No	Yes X No	NA
COVER SIDESLOPE - SOUTH	Yes X No	Yes 👿 No	Yes 🗶 No	NIA
EAST FACE SLOPE - NORTH	Yes 🔀 No	Yes 🔀 No	Yes 🗷 No	N/A
EAST FACE SLOPE - SOUTH	Yes 🗷 No	Yes 🖳 No	Yes 🗷 No	NIA
EAST FACE SLOPE - CENTRAL	Yes 🗷 No	Yes 🙀 No	Yes 🔀 No	NIA
MAINTENANCE REQUIRED / COMMEI		ood.		•

	VEGETATION		
REGION	CONDITION OF GRASS	UNWANTED VEGETATION PRESENT*?	OTHER (DESCRIBE BELOW)
TOP OF COVER- WEST	Good	✓ Yes ☐ No	>1% CEDT 1
TOP OF COVER - EAST		☐ Yes 👿 No	and the second s
EAST FACE SLOPE - NORTH		Yes 🗶 No	
EAST FACE SLOPE - SOUTH		☐ Yes 🔀 No	
EAST FACE SLOPE - CENTRAL		Yes No	71% CIDAL LEDII
COVER SIDESLOPE – NORTH		¥ Yes □ No	>1% CEDT 1
COVER SIDESLOPE – SOUTH		☐ Yes 😧 No	
VEGETATION-LINED PERIMETER CHANNEL – NORTH		☐ Yes 🗷 No	
VEGETATION-LINED PERIMETER CHANNEL – SOUTH		☐ Yes 👿 No	
 Unwanted vegetation includes weeds and deep-rooting trees. 			
MAINTENANCE REQUIRED / COMMENTS			
None			

REGION	EVIDENCE OF PLUGGING, OBSTRUCTIONS, OR EXCESS DEBRIS?	EVIDENCE OF CRACKS OR DETERIORATION?	OTHER (DESCRIBE BELOW)
GWIS INLET PIPES	☐ Yes 🔀 No	Yes X No	NIA
STRIP DRAIN INLET PIPE	☐ Yes 🕱 No	Yes 🗷 No	NA
ORTH MANHOLE OUTLET PIPE	☐ Yes 🗶 No	Yes 🗶 No	NA
SOUTH MANHOLE OUTLET PIPE	☐ Yes 👿 No	☐ Yes 😡 No	WIA
TREATMENT UNIT	Yes 👿 No	Yes 🛛 No	W/A
REATMENT UNIT OUTLET PIPE	☐ Yes 🕱 No	Yes 🗶 No	~/A
NORTH MANHOLE	☐ Yes 🗷 No	☐ Yes 🗶 No	N/A
SOUTH MANHOLE	☐ Yes 🗷 No	Yes 🗶 No	N/A
TREATMENT UNIT GRATING	NA	Yes 🗷 No	N/A
SOUTH MANHOLE	Yes 🛭 No	Yes No	N/A

STORMWATER MANAGEMENT STRUCTURES

CHANNELS / LINING

STRUCTURE	EVIDENCE OF EXCESSIVE EROSION, GULLYING, SCOUR, OR UNDERMINING?	EVIDENCE OF SETTLEMENT/ SUBSIDENCE OR DEPRESSIONS?	EVIDENCE OF BREACHING OR BANK FAILURE?	EVIDENCE OF BURROWING ANIMALS?	EVIDENCE OF SEDIMENT BUILD-UP OR OTHER BLOCKAGE?	EVIDENCE OF LINING DETERIORATION, HOLES, RIPS, OR SEPARATION?	EVIDENCE OF LINING DISPLACEMENT?
DIVERSION BERM	🗌 Yes 🔀 No	Yes 🔀 No	Yes 🗷 No	Yes 🔀 No	Yes 🙀 No	☐ Yes 🗶 No	Yes 🔀 No
VEGETATION-LINED PERIMETER CHANNEL – NORTH	Yes 🗽 No	Yes 🗷 No	☐ Yes 🗶 No	Yes 🗶 No	Yes 🗶 No	Yes 😧 No	☐ Yes 🔣 No
VEGETATION-LINED PERIMETER CHANNEL – SOUTH	☐ Yes 🙀 No	Yes X No	☐ Yes 🙀 No	☐ Yes 😾 No	Yes 🙀 No	Yes 🗓 No	Yes 🔣 No
RIPRAP-LINED PERIMETER CHANNEL	☐ Yes 🗶 No	Yes 🗶 No	Yes X No	☐ Yes 🛣 No	Yes X No	☐ Yes 🔀 No	Yes 🗶 No
C350-LINED EAST FACE	Yes 🗷 No	Yes X No	☐ Yes 🗷 No	Yes 🗷 No	Yes 🗶 No	☐ Yes 🗶 No	Yes 🗶 No
EAST FACE RIPRAP CHANNEL – NORTH	Yes 🗷 No	Yes X No	Yes 🗶 No	Yes 🗷 No	Yes 🗶 No	☐ Yes 🗶 No	Yes 🛮 No
EAST FACE RIPRAP CHANNEL – SOUTH	☐ Yes 🗷 No	Yes No	Yes 🗷 No	Yes 🗷 No	Yes 🗶 No	☐ Yes 🗷 No	
OTHER DEFICIENCIES?	OTHER DEFICIENCIES?						
MAINTENANCE REQUIRED / C		good car	dition				

STORMWATER MANAGEMENT STRUCTURES (CONTINUED)

OUTFALLS

CHECK EACH STRUCTURE FOR EXCESSIVE EROSION AND SEDIMENT DEPTH. IF SEDIMENT DEPTH IS COMPROMISING THE DESIGN CHARACTERISTICS, REMOVE SEDIMENT.

STRUCTURE	CONDITION / SEDIMENT DEPTH
DIVERSION BERM OUTFALL - NORTH	Good None
DIVERSION BERM OUTFALL - SOUTH	
CULVERT 1 OUTFALL	
CULVERT 2 OUTFALL	
SOUTHWEST CULVERT OUTFALL	

CULVERTS

CHECK EACH STRUCTURE FOR BLOCKAGE, SURROUNDING CONDITIONS, BREACHING, SEDIMENT BUILD-UP, AND INLET/OUTLET CONDITIONS.

STRUCTURE	CONDITION
CULVERT I	Good / None
CULVERT 2	
SOUTHWEST CULVERT	

MAINTENANCE REQUIRED

None.		
	U	

		EROSIC	ON CONTROL		
AREA			ADVERSEL	Y AFFECTING PLF?	
RUN-ON INTO PERIMETER CHANNEL – NORTH	Yes	No	COMMENT:	WIA	
RUN-ON INTO PERIMETER CHANNEL – SOUTH	Yes	No	COMMENT:	NA	
NATURAL DRAINAGE FED BY CULVERT 1	Yes	№ No	COMMENT:	~ IA	
NATURAL DRAINAGE FED BY NORTHEAST PERIMETER CHANNEL	Yes	№ No	COMMENT:	NIA	
NATURAL DRAINAGE FED BY RIPRAP	Yes	☑ No	COMMENT:	N/A	
MAINTENANCE REQUIRED All drailinges are in	. god	cond.	Lica.		

INSTITUTIONAL CONTROLS					
ITEM					
EVIDENCE OF EXCAVATION(S) OF COVER AND IMMEDIATE VICINITY OF COVER?	☐ Yes	₩ No	COMMENT:	<i>~ /A</i>	
EVIDENCE OF CONSTRUCTION OF ROADS, TRAILS ON COVER OR BUILDINGS?	Yes	₩ No	COMMENT:	~ 1A	•
EVIDENCE OF DRILLING OF WELLS OR USE OF GROUNDWATER?	Yes	⋈ No	COMMENT:	W/A	
DISRUPTION OR DAMAGE OFSEEP TREATMENT SYSTEM?	Yes	⊠ No	COMMENT:	NIA	
DAMAGE OR REMOVAL OF ANY SIGNAGE OR GROUNDWATER MONITORING WELLS?	Yes	No	COMMENT:	NIA	
OTHER DEFICIENCIES?					

ACTION ITEMS

DEFICIENCY	DATE NOTED	ACTION	DATE COMPLETED	COMMENTS
				MATERIAL WILLIAM CONT
				
Train to the second that the second s				THE PROPERTY OF THE PERSON OF
				:
# / 11-12-12-12-12-12-12-12-12-12-12-12-12-1		*		
				
		Market and the country to the fact that the first is the fact of t	And the state of t	PERIODE MANUFACIONE DE CITA DE LA COMPANIO DE LA C

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ORIGINAL LANDFILL - MONITORING AND MAINTENANCE PROGRAM

INSPECTION FORM

	SI	UBSIDENCE / CONSC	OLIDATION	
REGION	EVIDENCE OF CRACKS?	EVIDENCE OF DEPRESSIONS?	EVIDENCE OF SINK HOLES?	OTHER (DESCRIBE BELOW)
COVER - WEST	Yes 😧 No	Yes 🔀 No	Yes 🗷 No	N/A
COVER – EAST	Yes 🗷 No	Yes 🗷 No	Yes 🗷 No	N/A
BUTTRESS FILL	Yes 🗶 No	Yes 🗷 No	Yes 🗷 No	NA
DIVERSION BERM 1	☐ Yes 🗶 No	Yes 🗷 No	Yes X No	N/A
DIVERSION BERM 2	☐ Yes 🗷 No	Yes 😧 No	Yes No	N/A
DIVERSION BERM 3	Yes 🗷 No	Yes 🗷 No	Yes X No	NA
DIVERSION BERM 4	☐ Yes 🗶 No	☐ Yes 😧 No	Yes 👿 No	NIA
DIVERSION BERM 5	☐ Yes 🗷 No	Yes 🗖 No	☐ Yes 🗶 No	1/A
DIVERSION BERM 6	Yes 🔀 No	Yes 🗷 No	☐ Yes 🗶 No	w/A
DIVERSION BERM 7	☐ Yes 🗷 No	Yes No	Yes 🗶 No	Small depression = 100 you
ANCE REQUIRED / COMME	NTS		11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	west of chancel # 2

REGION	EVIDENCE OF SEEPS?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?
COVER – WEST	Yes No	Yes 🔀 No	No
COVER – EAST	Yes No	Yes 🗶 No	~ ~ ~
BUTTRESS FILL SIDESLOPE	Yes No	Yes 🗷 No	No
WEST PERIMETER CHANNEL SIDESLOPES	Yes No	. Yes 😧 No	
EAST PERIMETER CHANNEL SIDESLOPES	☐ Yes 👿 No	☐ Yes 🗷 No	\mathcal{N}_{o}
COVER SEEPS (IF PRESENT)	Yes No	. Yes 💹 No	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
ENANCE REQUIRED/COMMENTS Vonc required.			

		SOIL COVER	}	
REGION	EVIDENCE OF SOIL DEPOSITION OR EROSION?	EVIDENCE OF EROSION RILLS/GULLIES?	EVIDENCE OF BURROWING ANIMALS?	OTHER (DESCRIBE BELOW)
COVER - WEST	Yes 🔀 No	Yes 🙀 No	Yes 🔀 No	w /A
COVER - EAST	Yes 🗶 No	Yes 🔀 No	Yes 🔀 No	N/A
BUTTRESS FILL	Yes 🗶 No	☐ Yes 🗷 No	☐ Yes 👿 No	N/A
BUTTRESS FILL SIDESLOPE	☐ Yes 🐱 No	☐ Yes 🔀 No	Yes 🔀 No	NA
NONE.	NTS			
			· · · · · · · · · · · · · · · · · · ·	

REGION	CONDITION OF GRASS	UNWANTED VEGETATION PRESENT*?	PERCENTAGE OF GRASS VERSUS BARE GROUND?	PERCENTAGE OF UNWANTED VEGETATION?
COVER- WEST		Yes No		
COVER - EAST		Yes No		
DIVERSION BERM 1		Yes No		
DIVERSION BERM 2		Yes No		
DIVERSION BERM 3		Yes No		
DIVERSION BERM 4		Yes No		
DIVERSION BERM 5		Yes No		
DIVERSION BERM 6		Yes No		
DIVERSION BERM 7		Yes No		
WEST PERIMETER CHANNEL		Yes No		
EAST PERIMETER CHANNEL		Yes No		
UPPER BUTTERESS FILL SIDESLOPE		Yes No		
LOWER BUTTRESS FILL SIDESLPOE		Yes No		
LOWER BUTTRESS FILL SIDESLPOE inted vegetation includes weeds and deep-rooting to NCE REQUIRED / COMMENTS	rees.	Yes No		

STORMWATER	RMANAGEMENT	STRUCTURES

CHANNELS / LINING

STRUCTURE	EVIDENCE OF EXCESSIVE EROSION, GULLYING, SCOUR, OR UNDERMINING?	EVIDENCE OF SETTLEMENT/ SUBSIDENCE OR DEPRESSIONS?	EVIDENCE OF BREACHING OR BANK FAILURE?	EVIDENCE OF BURROWING ANIMALS?	EVIDENCE OF SEDIMENT BUILD-UP OR OTHER BLOCKAGE?	EVIDENCE OF LINING DETERIORATION, HOLES, RIPS, OR SEPARATION?	EVIDENCE OF LINING DISPLACEMENT?
DIVERSION BERM I	Yes 😧 No	☐ Yes 🕱 No	Yes 🖟 No	Yes 🗷 No	Yes 🗽 No	Yes 🔀 No	Yes X No
DIVERSION BERM 2	☐ Yes 🕱 No	Yes 😧 No	Yes 🗷 No	Yes 🔣 No	Yes X No	Yes X No	Yes 🗶 No
DIVERSION BERM 3	☐ Yes 🕱 No	Yes 🗶 No	Yes 🗷 No	Yes 😧 No	Yes 🗶 No	Yes 🗶 No	Yes 🗶 No
DIVERSION BERM 4	☐ Yes 🗷 No	Yes 🗶 No	Yes 🙀 No	Yes 🗶 No	Yes 🗶 No	Yes 🗶 No	Yes X No
DIVERSION BERM 5	☐ Yes 🗷 No	Yes No	Yes 😧 No	☐ Yes 🙀 No	Yes X No	Yes 🗷 No	Yes X No
DIVERSION BERM 6	Yes 🔣 No	Yes 🗶 No	☐ Yes 🕱 No	Yes 🔀 No	☐ Yes 🙀 No	☐ Yes 😧 No	Yes 🗶 No
DIVERSION BERM 7	☐ Yes 👿 No	Yes X No	☐ Yes 🗷 No	Yes No	Yes X No	Yes 🗷 No	Yes X No
. CHECK DAMS	☐ Yes 🗷 No	Yes 🗶 No	Yes 🔀 No	Yes 🙀 No	Yes 🔀 No	Yes 🔀 No	Yes 🔀 No
WEST PERIMETER CHANNEL	Yes 🗷 No	Yes 🔀 No	Yes No	Yes 🗶 No	Yes X No	Yes 🗶 No	Yes 🔀 No
EAST PERIMETER CHANNEL	Yes 🗷 No	Yes 😧 No	Yes 🗷 No	Yes 🛛 No	Yes 🔀 No	Yes 🗷 No	Yes X No
OTHER DEFICIENCIES?						•	
MAINTENANCE REQUIRED/	COMMENTS	closely	meniter	the 5/4	~ p !~ g	the cast	- side

STORMWATER MANAGEMENT STRUCTURES (CONTINUED)

OUTFALLS

CHECK EACH STRUCTURE FOR EXCESSIVE EROSION AND SEDIMENT DEPTH. IF SEDIMENT DEPTH IS COMPROMISING THE DESIGN CHARACTERISTICS, REMOVE SEDIMENT.

STRUCTURE	CONDITION / SEDIMENT DEPTH
DIVERSION BERM -	
OUTFALL	Good/None
DIVERSION BERM	1
OUTFALL 2	
DIVERSION BERM	
OUTFALL 3	
DIVERSION BERM	·
OUTFALL 4	
DIVERSION BERM	
OUTFALL 5	
DIVERSION BERM	
OUTFALL 6	
DIVERSION BERM	
OUTFALL 7	THE RESIDENCE OF THE PARTY OF T
WEST PERIMETER CHANNEL OUTFALL	
EAST PERIMETER CHANNEL OUTFALL	
FRENCH DRAIN OUTFALL (SID)	
Total control of the	

None		
MAINTENANCE REQUIRED / COMMENTS		
None.		····

OTHER DEFICIENCIES?

EROSION CONTROL					
AREA			ADVERSEI	LY AFFECTING OLF?	
NORTH OF THE ORIGINAL LANDFILL	Yes	⋈ No	COMMENT:	NIA	
WEST OF THE WEST PERIMETER CHANNEL	Yes	⋈ No	COMMENT:	NIA	
EAST OF THE EAST PERIMETER CHANNEL	Yes	⊠ No	COMMENT:	NIA	
NORTH OF WOMAN CREEK	☐ Yes	∡ .No	COMMENT:	NIA	
MAINTENANCE REQUIRED					
	- 	· · · · · · · · · · · · · · · · · · ·			

INSTITUTIONAL CONTROLS						
ITEM EVIDENCE OF EXCAVATION(S) OF COVER AND IMMEDIATE VICINITY OF COVER?	☐ Yes	⊠ No	COMMENT:			
EVIDENCE OF CONSTRUCTION OF ROADS, TRAILS ON COVER OR BUILDINGS?	☐ Yes	⊠ No	COMMENT:	N/A		
EVIDENCE OF DRILLING OF WELLS OR USE OF GROUNDWATER?	Yes	∡ No	COMMENT:	N/A		
DAMAGE OR REMOVAL OF ANY SIGNAGE OR GROUNDWATER MONITORING WELLS?	Yes	⋈ No	COMMENT:	~/A		
OTHER DEFICIENCIES?						
None						

DEFICIENCY	DATE NOTED	ACTION	DATE COMPLETED	COMMENTS
		THE STATE OF THE S		
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No. Constitution of the Co				
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SIGNATURE: 127/06

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